DOCUMENT RESUME

ED 335 913 FL 019 402

AUTHOR Ichihashi, Kumiko, Ed.; Linn, Mary Sarah, Ed.
TITLE Kansas Working Papers in Linguistics. Volume 16.
INSTITUTION Kansas Univ., Lawrence. Linguistics Graduate Student Association.
PUB DATE 91
NOTE 185p.; For individual papers, see FL 019 403-411.
AVAILABLE FROM Kansas Working Papers in Linguistics Dept. of Linguistics, University of Kansas, Lawrence, KS 66045.
PUB TYPE Collected Works - General (020)

EDRS PRICE MF01/PC08 Plus Postage.
DESCRIPTORS *Discourse Analysis; Etymology; Folk Culture; Foreign Countries; Grammar; Interpersonal Communication; *Language Research; Linguistic Theory; Nepali; Phonology; Pronouns; Spanish; Syntax; *Uncommonly Taught Languages
IDENTIFIERS Cuba (Havana); Hualapai; Taiwan

ABSTRACT

Reports of recent original research on linguistics by faculty and students of the University of Kansas are presented. Topics include: "Collaboration on Topic Change in Conversation" (Mary Howe); "Stories in Conversation" (Roberta Senner Hofer); "It's Like, 'What's Happening in the Evolution of Like?': A Theory of Grammaticalization" (Teresa Meehan); "Folk Etymology (in English and Elsewhere)" (Adrian Poruciuc); "Liquid Assimilation in Havana Spanish" (Fenfang Hwu); "The Syntax-Phonology Interface as the Key to Metricality: Evidence from Taiwanese Folk Songs" (Yuchau E. Hsiao); "Causative Constructions in Nepali" (Kaoru Horie); "Transitivity Indicators: "-Yu" and "-Wi" in Hualapai" (Kumiko Ichihashi); and Proto-Algic III: Pronouns" (Paul Proulx). A cumulative listing of the contents of volumes 1-16 of the working papers is also included. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Ichiashi, Lino

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

ED385918

Kansas Working Papers in Linguistics

BEST COPY AVAILABLE

FL019402

Kansas Working Papers in Linguistics is a regular publication of the Linguistics Graduate Student Association, Department of Linguistics, University of Kansas, Lawrence, Kansas, 66045.

Linguistics Graduate Student Association executive committee members, 1990-1991:

President:	Marcellino Berardo
Vice President:	Isaias Reis
Secretary:	Scott Schiefelbein

Aim: *Kansas Working Papers in Linguistics* (KWPL) is intended as a forum for the presentation, in print, of the latest original research by the faculty and students of the Department of Linguistics and other related departments at the University of Kansas. Papers contributed by persons not associated with the University of Kansas are also welcome. The papers published in *KWPL* may not be reproduced without written permission from the Linguistics Graduate Student Association.

Send all manuscripts, requests for individual volumes, and inquiries to:

Editors, KWPL
Department of Linguistics
University of Kansas
Lawrence, KS 66045 USA

The cost per issue for Volume 1 through 6 and Volume 8, Number 1, is US$4.50 postpaid. The cost for Volume 10, Number 1, and Volume 11, is US$7.50 postpaid. The cost for Volume 14, Number 2, is US$8.50 postpaid. The cost for Volume 7, Volume 8, Number 1, Volume 9, Volume 10, Number 2, Volumes 11 and 12, and Volume 14, Number 1, is US$10.00 postpaid. Reprints of individual articles may be requested for US$3.00 postpaid. For orders outside the United States and Canada, please add US$3.00 per volume to help defray the costs of postage. A cumulative index to volumes 1-16 is available upon request. Institutions producing a similar publication may request a reciprocal agreement.

The editors would like to thank the faculty and staff of the Linguistics Department and the Graduate Student Council for their continuing encouragement and support.

Cover design by David Andrew Toshraah Nokose Skeeter

Kansas Working Papers in Linguistics

edited by

Kumiko Ichihashi
Mary Sarah Linn

Partial funding for this journal is provided by the Graduate Student Council for the Student Activiy Fee.

© Linguistics Graduate Student Association
University of Kansas, 1991

Volume 16
1991

Kansas Working Papers in Linguistics
Volume 16

Part I: General Linguistics

Collaboration on Topic Change in Conversation
Mary Howe 1

Stories in Conversation
Roberta Senner Hofer 15

It's Like, 'What's Happening in the Evolution of Like?':
A Theory of Grammaticalization
Teresa Meehan 37

Folk Etymology (in English and Elsewhere)
Adrian Poruciuc 53

Liquid Assimilation in Havana Spanish
Fenfang Hwa 59

The Syntax-Phonology Interface as the Key to Metricality:
Evidence from Taiwanese Folk Songs
Yuchau E. Hsiao 77

Causative Constructions in Nepali
Kaoru Horie 99

Part II: Studies in Native American Languages

Transitivity Indicators *-Yu* and *-Wi* in Hualapai
Kumiko Ichihashi 111

Proto-Algic III:..Pronouns
Paul Proulx 129

Cumulative Contents to Volumes 1-16 171

Part I: General Linguistics

COLLABORATION ON TOPIC CHANGE IN CONVERSATION

Mary Howe

Abstract: Conversations are cooperatively achieved speech events. Analysis of topic changes shows that topic endings are negotiated by participants over a series of turns, using the following specific types of indicators: summary assessments, acknowledgment tokens, repetition, laughter, and pauses. This analysis supports the view of conversation as a collaborative event.

Conversations are cooperatively achieved by participants, as has been shown by recent work in conversation analysis (see, for example, Sacks et al. 1974, Wilson et al. 1984, Houtkoop and Mazeland 1985 on turn-taking in conversation, Schegloff 1972 on conversational openings, and Wilson and Zimmerman 1986 on the organization of silence). Topic endings are one aspect of conversational interaction which show very clearly the collaboration of participants.

Whether topic changes in conversation are explicit (e.g., "OK, let's talk about something else now") or not, they are nonetheless attended to by conversation participants. Participants expect utterances to be relevant to preceding utterances, so in order to introduce a new topic, i.e., something that is not relevant, there are specific procedures which are followed to close off the old topic. Because these procedures take place over a series of utterances, both (or all) participants must cooperate to close a topic. Indeed, the behavior of participants who do not follow the normal topic changing procedures may be labelled as deviant in some way. In this paper I discuss the kinds of topic-ending utterances which mark disjunctive topic changes, in which participants make an obvious transition from one topic to another (as opposed to changes resulting from what Jefferson (1984b) calls stepwise transition, where the change from one topic to another is gradual and no clear boundary between the two topics is apparent). I then describe how these topic-ending indicators interact to show the cooperative nature of topic change.

The data upon which I base my analysis consist of tape-recorded naturally occurring conversations. With one exception,[1] the participants in the conversations were native speakers of American English. Most of the

Kansas Working Papers in Linguistics, 1991, Volume 16, pp. 1-14

participants were acquainted with each other; in the few cases where two participants did not know each other, a third person who knew both was present. All of the participants were adults between the ages of eighteen and fifty. The settings for the conversations were informal, and included, among others, the university cafeteria, one participant's living room, and the reception desk of a dormitory.

Topic endings in conversation are much more clearly marked than topic beginnings. This finding runs counter to an assumption I made at the beginning of the study, that topic endings would be either poorly marked or not marked at all and that the clearest indications of topic change would appear at topic beginnings, consisting largely of formulaic expressions such as "oh by the way." This assumption, which was based on my intuitions and the intuitions of people with whom I discussed the research, was reinforced by the fact that much of the literature on topic change concentrates on topic beginnings (see, for example, Button and Casey 1984, 1985, 1988; and Maynard and Zimmerman 1984), and that topic endings are only addressed in the context of conversation closings (Schegloff and Sacks 1974, Button 1987).

Topic endings are clearly marked in two ways: First, there are specific kinds of utterances which can be identified as topic-ending indicators. Second, these utterances rarely occur alone, but instead occur in sequences of at least two and often more topic-ending utterances exchanged by participants. The potential for topic change exists after any one of the indicators in a sequence. There are likely to be several such points at the end of topics.

I. Topic Ending Indicators

The topic ending indicators I found in my data are (1) summary assessments, (2) acknowledgment tokens, (3) repetition, (4) laughter, and (5) pause. In this section I will discuss each of these indicators, in order of occurrence in the data. There may be more than one indicator at a topic closing, but they do not occur in random order. Summary assessments are most likely to occur first, and if a pause is present, it always occurs last, immediately before the beginning of topic 2.[2]

A. Summary Assessments

The term summary assessment is taken from Jefferson (1984a). However, she does not define the term, presumably because it seems to be self-explanatory. A summary assessment generally takes the form of a statement, is uttered with dropping final intonation, and

may be part of an adjacency pair of which the second part is an acknowledgment token (see next section for discussion of acknowledgment tokens). It is a comment on topic 1 which seems to close off the topic from further discussion. It may also function as a formulation, as discussed by Heritage and Watson (1979), clarifying the central point of the topic (the gist, or what Labov and Fanshel [1977] refer to as the evaluation) or stating the consequence of what has been talked about (the upshot). More often, however, it functions as a coda, a concluding remark, after which further conversation relevant to topic 1 is unnecessary. The main characterization of the summary assessment is that it contributes little, if any, new information to topic 1. In the following example, M's utterance at line 17 sums up and evaluates the problems with the microphone.

(trans2b-1a)[3]

1	R:	yeah, that's better ( )=
2	M:	the whole reason why I got that microphone. I
3		really just got the microphone so that
4	R:	it wouldn't be such an obvious=
5	M:	=well, no but so I I wouldn't have so much tape
6		noise. but as it turns out
7	R:	[does it do
8	M:	it's a] fantastic microphone.
9	R:	picks up everything
10		((background noise))
11	T:	where where
12	R:	you were getting hiss and stuff?=
13	M:	=well from the internal microphone=
14	T:	=uff=
15	R:	=oh yeah cause it hears its own hears its own
16		micro- it hears its own motor yeah.=
17	M:	**=oh it (was dreadful)=**

In the next example, there are two summary assessments, at lines 429-430 and lines 431-432.

(trans2b-8)[4]

429	M:	=she can just be there, you know? **so maybe her**
430		**situation with men will also change.**
431	R:	**yeah I think getting away from home was the**
432		**best thing.**
433		(9.1)
434	>T:	what?
435	M:	Rosie wants to go outside and bark.
436	T:	I don't think that's a good idea.

This segment is preceded by a very long section on the topic of the romantic and family problems of a friend of

M and R's who has moved to another city. Both summary assessments function as closings to the topic.

B. Acknowledgment Tokens

Acknowledgment tokens are linguistic expressions which acknowledge the previous speaker's utterance without elaborating on it. They often (but not necessarily) occur in response to summary assessments, as in the following example.

(trans2b-4)

93 T: =doesn't have room for it in his car.
94 M: **oh.**

Other examples (besides oh above) of acknowledgment tokens include yes, yeah, no, mm hmm, okay, and right. It is not surprising that they occur at topic-ending points since they provide no further information relevant to the current topic. Although in other contexts intonation and stress on acknowledgment tokens may vary, when they occur topic-finally they are always spoken with dropping or even intonation and minimal stress. Acknowledgment tokens with rising intonation act as signals to the other participant to continue and are thus not topic-final. Extra stress may, among other things, signal emphatic agreement or involvement in the conversation, as in the following example:

(trans2b-18; this follows discussion of Humane Society practices.)

702 R: =they interviewed me at ah six months later,
703 and said that ah we're doing a little interview
704 about how the humane society operates and how
705 you feel about it and blah blah blah I said
706 well listen, you deal real well with animals
707 but your your human interface is ((laugh))
708 lacking ah=
709 T: =leaves something to be desired=
710 R: **=yeah=**
711 T: =what'd they say?
712 R: oh we'll take that under advisement thank you.
713 I mean they were real nice about it but=
714 M: =they probably actually pay attention to that
715 stuff=
716 R: **=yeah.**

Topic-final acknowledgment tokens, lacking these intonation and stress patterns, signal a) that the other participant need not continue and b) that the speaker is not providing any new information on topic 1.

C. Repetition

I found several instances in my data where one speaker repeated all or part of the previous speaker's utterance shortly before the topic boundary. Long utterances tended to be only partially repeated, with some changes occurring. Two examples follow:

(trans2b-5b)

147 M: somewhere in California.=
148 R: =yes southern California near [( )
149 T: just south] south
150 [east
151 R: Anaheim]
152 T: yeah, southeast of Long Beach=
153 R: =yeah=

(trans2b-14)

1366 T: =the one I put on.
1367 R: you puttin' it on again=

Speakers often repeat acknowledgment tokens which occurred at the beginning of the previous speaker's utterance, as the following two examples show.

(trans2b-3)

72 M: no. you can't do that on this.
73 T: no.=

(trans2b-5b)

152 T: yeah, southeast of Long Beach=
153 R: =yeah=

Repetition is used to perform a different function in the first two examples (2b-5a and 2b-14 above) than in the second two (2b-3 and 2b-5). In the first pair, the repetition of various lexical items leads up to the closing, but in the second pair, the repetition of acknowledgment tokens is the last part of the closing segment and is followed immediately by a topic boundary. Therefore I believe that the stronger topic-closing indicator is the repetition of acknowledgement tokens rather than of lexical items.

D. Laughter

Laughter can function as a topic-ending indicator, often in conjunction with other topic-ending indicators.

It can occur as the only topic-ending indicator (as in the example given below), but it has so many other functions in conversation that it is not a very powerful topic-ending indicator by itself. Laughter by one or more participants can occur immediately before a topic boundary, and it appears that in this position it replaces pause as the ending indicator, as shown by the following segment.

(trans2b-15)

1519 M: =they're pretty excited about this place, Dad
1520 was telling me that he talked to somebody from,
1521 the bank who was saying it was her third
1522 application from Rockland that day. she said,
1523 what's going on up there and Dad - so Dad said,
1524 you know maybe there's kind of a boom and we're
1525 in on the ground floor.
1526 T: ((laugh))=
1527 R: =((laugh))=
1528>T: =well, now it's time to go home and start
1529 preparing dinner for my wife.

In this example, as in most of the cases where laughter occurred, more than one participant laughed, and at topic-ending points the laughter tended to occur in turns rather than simultaneously.

E. Pause

Pauses are extremely common topic-ending indicators. They occurred immediately before the introduction of topic 2 in over half of the topic changes that I examined.

There is no arbitrary point at which the length of a pause becomes significant, because participants with different conversational styles use varying rates of speech (Tannen 1984, 1985) and correspondingly varying pause lengths. For example, in one of the conversations I recorded (trans2b), in which the participants are all rapid speakers and also know each other well, overlap and latching are very frequent, so a pause of more than one second is significant:

(trans2b-4)

93 T: =doesn't have room for it in his car.
94 M: oh.
95 (1.4)
96 M: so - did you - are you moved out?

On the other hand, in another conversation between one relatively rapid speaker (M) and one person who speaks very slowly (B), pauses of as much as four seconds, which would be almost uncomfortably long in the previously mentioned conversation, were not significant. In this conversation, topic-ending pauses were extremely long, as the next example shows:

(trans1b-1)

```
66   B:   did Priscilla listen to it?
67   M:   no I'm going to have her listen ((laugh))=
68   B:   ((laugh))
69        (7.2)
70   M:   'cause naturally I think our voices sound
71        different.
72        (2.6)
73   B:   yeah.
74        (9.7)
75  >M:   so what's new with you?
76        (2.0)
77   M:   apart from the tedium [of
78   B:                          oh]
79   M:   Russian phonetics.
```

Because of this variability of pause length from conversation to conversation, I cannot make a precise specification of the length of pauses that occur before topic boundaries. However, I measured all pauses longer than about one second with a stopwatch, and found that the longest pauses in a given conversation tended to occur before new topics (as in the example above, line 74).

II. Interaction of Topic Ending Indicators

Topic endings seem to be collaborated upon by the participants in conversation, rather than produced by only one of the participants. This is shown by the occurrence of sequences of several topic-ending indicators by both (or all) participants. If one participant introduces a new topic without sufficient closing of the previous topic, he or she may be perceived as flouting the Maxim of Relation (Grice 1975). The hearer may then be forced to make further inferences concerning the meaning of the utterance while assuming that topic 1 is still being discussed.

With the exception of summary assessments, the topic-ending indicators I found were all devoid of content, and even summary assessments contribute no new information to topic 1. They are thus boundary markers only. The more boundary markers are used, the more

effectively a topic is closed off, and the more likely it is that both participants in the conversation agree to its closing. This is why several topic-ending indicators appear in sequence, as in the following example:

(trans4b-7; there has been previous discussion of M's pregnancy.)

```
1386  J:    so are - do - are they - do they do any more
1387        sonograms? or anything like that?
1388        [(or is it just)
1389  M:    I don't know.]
1390  J:    I guess why.
1391  M:    right.  if everything's okay?  maybe not?
1392        (2.10)
1393        be kinda interesting though.
1394        (3.12)
1395  J:    baby's first picture.
1396        ((laughter))
1397  K:    (a smudge) ((laugh))
1398        (3.85)
1399  M:    yeah.
1400        (2.53)
1401  >     well are you guys planning any more trips?
1402  J:    I'm going to Alaska.
```

This segment is very strongly marked as a topic-ending point in the following way:

```
1386  J:    so are - do - are they - do they do any more
1387        sonograms? or anything like that?
1388        [(or is it just)
1389  M:    I don't know.]
1390  J:    I guess why.
1391  M:    right.  if everything's okay?  maybe not?
1392        PAUSE (2.10)
1393        SUMMARY ASSESSMENT be kinda interesting though.
1394        PAUSE (3.12)
1395  J:    SUMMARY ASSESSMENT baby's first picture.
1396        ((laughter))
1397  K:    SUMMARY ASSESSMENT (a smudge) ((laugh))
1398        PAUSE (3.85)
1399  M:    ACKNOWLEDGMENT TOKEN yeah.
1400        PAUSE (2.53)
1401  >     DISCOURSE MARKER, QUESTION well are you guys
            planning any more trips?
1402  J:    I'm going to Alaska.
```

Summary assessments and pauses seem to be the most common such indicators and were also most commonly found together, with pauses following summary assessments. In several cases where pauses do not occur following summary assessments, laughter does occur, which is one of the

reasons I believe laughter at a topic boundary may be interpreted as a filled pause.

Whether the summary assessment occurred with or without a pause, it was often followed by an acknowledgment token. In fact, topic-ending acknowledgment tokens only occurred in response to summary assessments. The sequence [Summary Assessment (+ Acknowledgment Token) + Pause] is one which seems to function as a particularly effective series of topic-ending indicators, immediately after which a topic boundary occurs and a topic-beginning marker is rarely used. The following example illustrates this pattern:

(trans3a3-1, this segment follows a long discussion on the topic of K's thesis)

```
423  K:    yeah.  I don't know, we'll see how it goes.=
424  A:    =mm hmm
425        (1.67)
426 >A:    last Friday it was, it was half, or it was two
427        for one, two lines for - and I didn't realize
428        it.=
429  K:    =what, bowling?=
430  A:    =yeah!=
```

This fragment can be analyzed as follows:

```
423  K:    yeah.  SUMMARY ASSESSMENT I don't know, we'll
           see how it goes.=
424  A:    ACKNOWLEDGMENT TOKEN =mm hmm
425        PAUSE (1.67)
426 >A:    NO BEGINNING MARKER last Friday it was, it was
427        half, or it was two for one, two lines for -
428        and I didn't realize it.=
```

In this example, K's summary assessment at line 423 concludes talk on topic 1 (K's thesis). A acknowledges K's utterance and then pauses.[5] No explicit topic-beginning indicator marks A's introduction of a new topic.

In circumstances where no topic-beginning indicator was present, the end of topic 1 was marked with at least two topic-ending indicators, as in the following example:

(trans4b-6)

```
467  R:    we've had] seventy-five, seventy-eight degree
468        weather already.=
469  K:    =yeah.
470  R:    it's been just really up and down this this
471        spring with winter and spring.
```

```
472         (2.75)
473         ((child's voice in background: whoa!))
474         (2.91)
475 >M:     wonder what he's playing with, which thing=
```

This segment follows several minutes of talk on the weather. At line 470, R makes a summary assessment of the topic. This is followed by what is essentially one long pause interrupted only by background noise. The new topic is not marked by any topic-beginning indicator. The fragment can be annotated as follows:

```
467  R:    we've had] seventy-five, seventy-eight degree
468        weather already.=
469  K:    =yeah.
470  R:    SUMMARY ASSESSMENT it's been just really up and
471        down this this spring with winter and spring.
472        PAUSE (2.75)
473        ((child's voice in background: whoa!))
474        PAUSE (2.91)
475 >M:    NO BEGINNING MARKER wonder what he's playing
476        with, which thing=
```

I consider summary assessments and pauses to be the most powerful indicators of potential topic change, especially when they occur together. This is because in every case where there was no topic-beginning indicator on topic 2, topic 1 ended with at least one sequence of [Summary Assessment (+ Acknowledgement Token) + Pause]. Neither acknowledgment tokens, laughter, or repetition occurred alone as topic-ending indicators. They only occur as topic-ending indicators after summary assessments or pauses. For this reason, and also because they all occur often throughout conversation, not just at topic boundaries, I believe that they are not primary indicators of topic change but merely serve to reinforce the main indicators, summary assessments and pauses.

As I noted earlier, although I expected that topic-beginning indicators would be of primary importance in topic change, topic-ending indicators were much more likely to mark topic change. All of these indicators may occur elsewhere in conversation, but at topic endings they appear together, in sequences of utterances alternating between participants.

The use of several topic ending indicators seems to show that both participants seek agreement on the closing of topic 1. The collaboration proceeds as follows: When participant A uses a topic ending indicator, participant B assumes that participant A is willing to initiate a new topic or to allow B to do so. Use of a second topic ending indicator as a response by B is an acknowledgment of that willingness and an agreement to it. At this

point either A or B may initiate a new topic, or the sequence may begin again.

When multiple topic-ending indicators do not appear, a misplacement marker (e.g., "oh by the way," "speaking of X," etc.) is likely to be used to mark the beginning of topic 2. This phenomenon supports the idea that topic endings are collaborated upon. Misplacement markers show that the speaker is aware of the conventional sequence which closes topic 1 and that he or she is violating that sequence. In my data, the topic beginnings which were indicated by misplacement markers were either not preceded by topic ending indicators or were preceded by only one, as in the following example:

(trans2b-11)

1230 T: I'll talk to my wife and see what she has to
1231 say=
1232 M: =all right=
1233 >R: =speaking of your wife?
1234 T: yes?
1235 R: you know what time it is.
1236 T: yes I do
1237 R: it's time that we be throwin a fish in the oven
1238 for - so we can feed her.

In this example, the only topic ending indicator is a relatively weak one, an acknowledgment token (at line 1232) which does not even occur in response to a summary assessment, as would customarily be the case.

One further point concerning multiple ending indicators is that they occur in a sequence in which one kind of indicator is followed by another kind, not by another of the same type. Thus I did not find any instances of a topic boundary occurring following two summary assessments in a row, with no intervening pauses or acknowledgment tokens. Of course, two pauses which occur in sequence simply become one long pause. The existence of a regular sequence of ending indicators, in which participants take turns in response to previous turns, is strong evidence for the collaborative nature of topic closing.

Participants collaborate on accomplishment of a conversation, both on a turn-by-turn basis and over larger sequential units, as is shown by examination of the sequences found in conversation openings and closings (Button 1987, Clark and French 1981, Schegloff 1979, and Schegloff and Sacks 1974) as well as the existence of adjacency pairs (Goffman 1976, Schegloff 1972). Analysis of topic changes in conversation supports this view of conversation.

NOTES

1. A native speaker of Spanish whose English is extremely fluent.

2. For ease of discussion I will refer to the topic preceding a boundary as topic 1 and the topic following a boundary as topic 2. This does not necessarily mean that there are only two topics in the conversation or that topic 1 is the first topic of the conversation. Thus when a boundary follows topic 2, topic 2 then becomes topic 1 in discussion of that boundary.

3. Words or phrases in the transcripts which exemplify points under discussion are printed in boldface.

4. In the segments of transcript used as examples, topic boundaries are indicated with this symbol: >. Although these appear at the beginning of the line where a new topic begins, the boundary is not the topic beginning, but the point immediately preceding it.

5. Both K and A are rapid speakers whose talk is frequently latched together or overlapping. A pause of 1.67 seconds is thus a long one relative to the usual timing between these two speakers.

REFERENCES

Button, Graham. 1987. Moving out of closings. In Talk and social organization, ed. by G. Button and J. R. E. Lee. Philadelphia: Multilingual Matters.

Button, Graham, and Neil Casey. 1984. Generating topic: The use of topic initial elicitors. In Structures of social action: Studies in conversation analysis, ed. by J. M. Atkinson and J. C. Heritage. Cambridge: Cambridge University Press.

Button, Graham, and Neil Casey. 1985. Topic nomination and topic pursuit. Human Studies 8:3-55.

Button, Graham, and Neil Casey. 1988. Topic initiation: Business-at-hand. Research on Language and Social Interaction 22:61-92.

Clark, H. H., and J. W. French. 1981. Telephone goodbyes. Language in Society 10:1-19.

Goffman, Erving. 1976. Replies and responses. Language in Society 5:257-313.

Grice, H. Paul. 1975. Logic and conversation. In Syntax and semantics 3: Speech acts, ed. by P. Cole and J. L. Morgan. New York: Academic Press.

Heritage, J. C., and D. R. Watson. 1979. Formulations as conversational objectives. In Everyday language: Studies in ethnomethodology, ed. by G. Psathas. New York: Irvington.

Houtkoop, Hanneke, and Harrie Mazeland. 1985. Turns and discourse units in everyday conversation. Journal of Pragmatics 9:595-619.

Jefferson, Gail. 1984a. Notes on a systematic deployment of the acknowledgement tokens "Yeah" and "Mm hm". Papers in Linguistics 17:197-206.

Jefferson, Gail. 1984b. On stepwise transition from talk about a trouble to inappropriately next positioned matters. In Structures of social action: Studies in conversation analysis, ed. by J. M. Atkinson and J. C. Heritage. Cambridge: Cambridge University Press.

Labov, William, and David Fanshel. 1977. Therapeutic discourse: Therapy as conversation. New York: Academic Press.

Maynard, D., and D. H. Zimmerman. 1984. Topical talk, ritual and the social organization of relationships. Social Psychology Quarterly 47:301-316.

Sacks, Harvey, Emanuel Schegloff, and Gail Jefferson. 1974. A simplest systematics for the organization of turn-taking in conversation. Language 50:696-735.

Schegloff, Emanuel. 1972. Sequencing in conversational openings. In Directions in sociolinguistics, ed. by J. J. Gumperz and D. Hymes. New York: Holt, Rinehart & Winston.

Schegloff, Emanuel. 1979. Identification and recognition in telephone conversation openings. In Everyday language: Studies in ethnomethodology, ed. by G. Psathas. New York: Irvington.

Schegloff, Emanuel, and Harvey Sacks. 1974. Opening up closings. In Ethnomethodology, ed. by R. Turner. London: Penguin.

Tannen, Deborah. 1984. Conversational style: Analyzing talk among friends. Norwood, NJ: Ablex.

Tannen, Deborah. 1985. Silence: Anything but. In Perspectives on silence, ed. by Deborah Tannen and Muriel Saville-Troike. Norwood, NJ: Ablex.

Wilson, Thomas P., John M. Wiemann, and Don H. Zimmerman. 1984. Models of turn-taking in conversational interaction. Journal of Language and Social Psychology 3:159-183.

Wilson, Thomas P., and Don H. Zimmerman. 1986. The structure of silence between turns in two-party conversation. Discourse Processes 9:375-390.

STORIES IN CONVERSATION

Roberta Senner Hofer

Abstract: Because conversational stories can be used for different purposes, they enter conversations in different ways. Sometimes they have a preface, sometimes not; sometimes a story fits smoothly into the ongoing talk, but other times it changes the topic. Observations such as these led me to the formulation of three major types of stories in conversation. While they share the same overall structure, each type has distinctive features. The features and story entry variations are described in this paper.

Because of different conversational styles, some people tell more stories than others (Tannen 1984: 30-31), and my husband Rod is one of those people. As a way of learning more about stories and how they work in conversation, I decided to record conversations in which my husband was a participant and then to analyze the stories he told. Studying the narratives of a single storyteller eliminated the need to consider variations in style; furthermore, my relationship to the narrator put me in the best position to judge the relative stability of the stories in his repertoire. Although he told his friends that my motivation in conducting this study was revenge for having to listen to him for so many years, my real interest was simply to find out how he always managed to get his stories, especially his favorite ones, into a conversation.

Using Labov and Waletsky's (1967) analysis of narrative structure as a way of defining narratives, I found many segments of conversation that could be defined as complete narratives. According to Labov and Waletsky (1967), a fully developed narrative has as many as six elements. First, it has an orientation, that is, all the background information that the audience needs to understand why or how the events occurred; next, it has complicating action, a series of event clauses that lead up to the main event, or the result, of the narrative. At the same time, the narrator also adds an evaluation to help the audience understand why he is telling the story and whether he thinks it is funny, scary, disgusting, etc. Polanyi (1985: 14) writes that evaluations are a way of 'assigning prominence' to a story, of making one part of the text stand out from

Kansas Working Papers in Linguistics, 1991, Volume 16, pp. 15-35

other parts. The evaluation by the narrator frequently occurs just prior to the main event, but other forms of evaluation may be scattered throughout the narrative. Many evaluations also come from the audience, although Labov and Waletsky did not include any audience responses in their data.

In addition to these elements, at the beginning of a story the narrative sometimes starts with an abstract, which is a brief summary of the story in one or two clauses. Finally, at the end of a story, the teller signals to the audience that the narrative has finished by adding a coda which concludes the action of the story and returns the audience to the present time (Labov & Waletsky 1967: 39).

Labov and Waletzky's concern in their original publication was to find the very simplest form of narrative; thus, they chose to study 'oral versions of personal experiences' (1967: 12). Furthermore, they distinguished between 'expert story tellers' and ordinary people; they chose to study oral versions of personal experiences because they are 'not the product of expert story tellers that have been re-told many times, but the original productions of a representative sample of the population' (Labov & Waletsky 1967: 12). They further stated that a story by a reputed storyteller possesses 'formal features which set it aside from others' (Labov & Waletzky 1967: 43). The very fact that they made these distinctions is evidence that Labov and Waletzky recognized differences in stories.

In this paper I demonstrate that within the corpus of one individual's stories there are also features which set one apart from another, even though they share the same overall structure. Based upon differences in their general characteristics and the way the stories function in the ongoing talk, I have identified three types of stories in conversation: (1) durable personal experience narratives (PENs), (2) disposable PENs, and (3) news stories. Following a description of features common to the different story types, I will discuss in greater detail how each type of story enters a conversation.

General Features

First, as implied by their names, durable PENs are lasting, often repeated stories. They are the teller's favorite stories and are a part of his/her permanent

repertoire. Some of the stories in my data, for example, The Wolf Spider and New Year's Eve, are 15-20 years old, although I collected the data within the last two years. While durable PENs may be inactive for long periods of time, they can easily be recalled because they are repeated many times throughout the narrator's lifetime.

This is not true of disposable PENs, which are are told only once or twice with the structure of a narrative but then are forgotten by the narrator. Sandra Stahl, who writes about personal narratives as folklore, writes only about those I have called durable PENs, but she recognizes that others exist. Stahl writes that 'a person may relate an incident in conversation in the pattern of a personal narrative but never again repeat the story nor even remember that he has created the story at all' (1977a: 38).

Because these are stories of personal experience, both types of PENs are generally told in the first person. The teller is one of the main characters in the story or at least a witness to the events. In a few cases they may be about someone for whom the narrator has great empathy. Nevertheless, they must be true stories and, therefore, they do not include family legends that cannot be verified by the teller or gossip to which there is not a witness.

Unlike either type of PEN, news stories must be about events that are current in the narrator's life. News stories may also be told in first person, but frequently they are told in third person. In my data these stories include a wider circle of friends with whom the narrator has recently been in contact. The two examples in this paper, The Shattered Windshield and Meeting with the Boss, are both about people Rod works with, and his own involvement is peripheral. News stories may either last, or they may be forgotten like disposable PENs. If they last, they become durable PENs, but in that case they may also need to be personalized in some way.

As a result of their frequent repetition, durable PENs develop a stable pattern. With these narratives the teller repeats the story very much the same way every time, even repeating entire sentence patterns, although he may tailor some details to fit a particular audience or situation. The story is recalled as a complete unit and becomes so familiar to the narrator that he may be able to take liberties with the basic

structure. For instance, in my data I have one story in which Rod put the final event before the orientation (See Figure 1, Appendix I). This is a technique which can be used very effectively if the teller knows the story well, and it is one of the features which Labov and Waletzky (1967: 43) cited as the mark of an experienced storyteller.

In contrast, disposable stories never devlop a pattern. Indeed, they are characterized by many hesitations and may include unnecessary details. This can be seen most clearly in this excerpt from a disposable story.

Excerpt from Archie's Asthma Attack.

5. /
6. /
7. R: (clears throat) I and Archie McLane went to uh
8. we're going out to the prebid walkthrough at West Shore School District in Pennsylvania
9. I used to live in West Shore School District when we were uh uhh
10. B: In Harrisburg.
11. R: (quietly) Harrisburg.
12. C: (unintelligible)
13. R: (We're doing an abatement there.)
14. (louder) First of all we set the record for being in an airplane that's not flying.
15. The Hall-Kimbrell record for that it's six and a half hours.
16. B: What do you mean?
17. C: O:h!
18. R: That's where you sit=
19. C: On the runway or something?
[
20. R: at--on the runway at O'Hare
21. C: Ahh.
22. R: Until the last possible connecting flight has left and then they take you back to the=
23. C: Right.
24. R: gate and cancel the flight.
25. C: M hmm.
26. R: Which they quickly reins--instituted for some reason.
27. Anyway.
28. We end up
29. in Harrisburg

[
30. C: What airline was it?
31. R: (quietly) I don't think I can tell you.
32. /
33. R: Uh we end up in uh
34. Harrisburg
35. at
36. 11:30 at night something like that and the

In this story in which Archie's asthma attack saved Rod and Archie from oversleeping, the information about setting a record for being on a grounded airplane (lines 14-15) is completely extraneous to the point of the story. Furthermore, when the narrator attempted to return to the story (lines 27-29), the audience was more interested in continuing the airplane discussion (line 30). After answering the question about the airline (line 31), the narrator did go on with the story, but very slowly and deliberately, pausing, and using uh to fill space. All of these features indicate that the teller is unrehearsed and unsure of himself.

If a news story is repeated frequently, it develops a stable pattern and becomes a durable PEN. However, news stories are initially told with characteristics of disposable stories such as hesitations and false starts. The beginning of The Shattered Windshield provides evidence of this in lines 22 and 23, when the narrator starts a sentence, then stops midway and starts over again.

Excerpt from The Shattered Windshield

17. /
18. /
19. B: When did Edwardo and Sam come?
20. R: Well Edwardo after they replaced the windshield in his airplane (no falling intonation)
21. B: How did that happen?
22. R: (faster tempo) They were uh uh OK he's flying from LA to New York and they land in Kansas City and take off again.
23. On landing in Kansas City the airplane comes in and the nose doesn't--they don't turn the nose down. It's going down on the runway like this. (hand gesture showing angle)
24. B: mhmm
25. R: So the pilot
26. had to make the decision to take off again or

force the nose down. (slaps hand down on table)
27. B: mhmm
28. R: And he forced the nose down (slaps table) 'n it shattered the windshield.
29. B: Whoa.

Different types of stories are also used for different purposes. Durable PENs are primarily used to entertain, regardless of the point they may add to a conversation, or whether they are designed to amuse, shock or amaze the audience. In The Wolf Spider, for example, although the narrator began and ended with an explanation of the living habits of wolf spiders (lines 7-9 and 54-57), he was far more intent on making the audience laugh than on giving any serious explanation. Bracketing the story with these brief explanations gave him a legitimate excuse to tell the story, which he then made as entertaining as possible, using many evaluative devices such as imitative voices, reported speech, increased volume, loaded words, etc.

Excerpt from The Wolf Spider

1. J: My day is going fine.
2. I had Tom kill the biggest spider I have e:ver seen.
3. R: Big and hairy?
4. [
4. J: Have you
5. Have you had any spider trouble this year?
6. R: No.
7. But if it's big and hairy it's probably a wolf spider
8. which come in in the fall.
9. They come in from outside.
10. Scared the living daylights out of Berta when we lived in a place.
11. J: A wolf spider?
12. R: [Wolf spider. I uh
13. I'd gone to bed and here's this blood curdling scream from the kitchen.
14. J: (laughs)
15. B: [(laughs)
16. R: And she's out there standing on the table=
17. B: It wasn't that blood curdling.
18. R: She's out there standing on the table and I was sure she was being raped.
19. J: (laughs)

[
20. B: (laughs)
21. R: She's standing on the table going (raises pitch) spider spider spider
22. J: (laughing) Oh Roberta
23. B: (laughing) I was.
24. I was.
25. You should have seen it Jess. It was huge. It was covered=
26. J: Are they like (gestures with hand to show size)
27. R: Not that--quite that big. I mean this was
28. I mean he was about that size (hand gesture) but he's hairy.
29. He's very hairy.
[
30. J: Does that include legs?
31. R: Yeah yeah.
32. B: That makes it like an animal.
33. If its hairy.
34. J: (laughs)
35. R: So uh
36. uh
I got a mason jar and a broom and it ran up the wall
37. J: What time of night was this?
[
38. R: and got it
39. Huh?
40. J: What time of night was this?
41. B: Oh it was--it was after midnight.
[
42. R: This was after midnight.
43. And captured it in a mason jar and took it up to KU the next morning
44. and went to a Dr. Beers.
45. I think that's what his name was.
46. He was the spider man at KU.
47. And he goes oh
48. / (pauses to look at imaginary jar)
49. Scared your wife didn't it
50. And I go how'd you know?
51. And he goes
52. Does it all the time this time of year
53. J: (laughs)
54. R: And its a wolf spider and they live
55. They don't build a web but they live outside and very often they'll come in
56. The most common way of coming in is when people go out and dig vegetables before the winter
57. and they'll end up with a wolf spider being in

the vegetables and then it comes out once it's in the house

When a narrator tells a durable PEN, it can be a performance. Everybody involved is aware of the act of storytelling and the narrator is in the lead. Disposable stories, on the other hand, are told much less consciously than durable PENs; as Stahl (1977a: 38) wrote, the teller may not even remember that he created a story. They are very likely to be used to fill a gap in a conversation, as the Archie story did. Disposable PENs may also be used as a quick illustration of a point that is difficult to explain otherwise. While all stories illustrate a point in some way, disposable PENs are invented for this purpose at the moment they are needed.

News stories are again different because their main purpose is to inform the audience of current events which the teller finds newsworthy. At the same time, the teller does not simply report all the day's events but selects those he thinks the audience will find most interesting. Even though each story type has a different primary purpose, they all overlap to some degree. The teller adds some evaluation to a news story, for instance, so news stories may also amuse, shock, amaze, or otherwise entertain. Likewise, a durable PEN may sometimes fill a gap in conversation, etc.

Because durable PENs have a stable pattern, they are versatile. Unlike disposable stories, which are created to fit a specific situation, durable PENs can be used in any number of situations to make a point or even different points. Rod has a story about forgetting the Lord's Prayer which he might use as an excuse not to be a group leader or as a way of explaining how he could also forget someone's name. This versatility exemplifies what Katherine Galloway Young (1987) calls the difference between the point of a story and the point of the telling. The point of the story is related to the events in the story, while the point of telling the story pertains to 'the relationship between the story and the occasion on which it is told' (Young 1987: 54). Durable and disposable PENs have a point in telling; they are always related to the ongoing conversation. News stories have a point, but they do not have a point in telling beyond their currency. This last characteristic can be seen more clearly when considering the entry of each story type into a

conversation.

Before considering different means of story entry, however, it is important to understand the nature of turn-taking in conversation as described by Sacks, Schegloff and Jefferson in their 1974 paper, "A Simplest Systematics for the Organization of Turn-Taking for Conversation." According to Sacks, et.al., conversation is democratically arranged around utterance turns. The basic principle is that each participant is equally entitled to take a turn. As one speaker completes an utterance, other participants feel obligated or entitled to take their own turn in speaking (Sacks and Schegloff 1974: 236). Sacks (1972) also writes, 'If a speech event is going to take more than one sentence to complete, speakers must get permission to take an extended turn, or risk being interrupted on completion of the first sentence' (cited in Young 1987: 38). Since by definition stories consist of at least two or three clauses, they take more than one utterance to complete, and, therefore, some adjustment of the turn-taking routine must take place (Sacks 1970, cited in Young 1987: 158). This is why the narrator must in some way signal to other participants in the conversation that he needs an extended turn. To do so he gives a story preface, which is defined by Sacks (1970) as 'an utterance that asks for the right to produce extended talk and says that the talk will be interesting' (cited in Young 1985: 38).

Sacks (1970, cited in Young 1985: 38) also suggests that it is up to other participants to indicate whether or not they are interested and to give permission to the storyteller, or, in other words, to indicate that they are willing to give up their turns while he tells a story. While listeners are prevented from taking any extended turns at talk themselves or from changing the subject, other utterances may be useful contributions to the story. The narrator depends on responses of the audience to help shape the story and to know whether they're following. These token responses keep up the pattern of turn-taking without interrupting the storyteller.

While Sacks, Schegloff and Jefferson wrote about turn-taking in conversation, John Wilson (1989: 3) claims that they never 'actually proposed a theory of conversation which might explain what it is about this type of talk that makes it a speech event in its own right.' In his book, <u>On the Boundaries of Conversation</u> (1989), Wilson defines conversation as 'a speech event

in which an effort is made to maintain an equality of speaker rights' (1989: 55). Having an equality of speaker rights means 'that any individual has an equal right (within conversation) to initiate talk, interrupt, respond, or refuse to do any of these things' (Wilson 1989: 20). In other speech events, such as narratives, there are more constraints on the rights of an individual, as previously mentioned. They may not take an extended turn after one person begins a story, and they are expected to ask questions or comment on the story, but they may not refuse to respond at all or initiate another topic without appearing to be rude.

While speech events such as narratives supplement the flow of conversation, they are different from conversation as defined by Wilson's speaking rights theory. Conversation and narratives are separate speech events. Wilson writes that talk in any context moves in and out of conversation, and participants move from one speech event type to another by means of out-modes. Out-modes are utterances that 'change the status, or definition, of the developing speech event' (Wilson 1989: 56). Conversationally tied out-modes maintain the equal status of participants as they introduce conversationally related speech events such as jokes, narratives, banter, and so forth.

Story Entry

Each type of story enters--or interrupts--a conversation differently. First, durable PENs are almost always preceded by an abstract or preface. Because a durable PEN is a relatively self-contained item, the teller is not only aware that he needs to take a longer turn than normally acceptable, but also that he needs to carefully situate the story in the conversation. Sacks (1970) writes that stories 'must seem to arise naturally from the ongoing talk lest the storyteller seem to want to dominate the interaction unduly' (cited in Polanyi 1985: 34). With durable PENs the story not only arises from the conversation, but the storyteller may go to great lengths to find an opening or to create one, even changing the direction of the conversation to do so. He wants to tell the story, but he must also be sure that it will be interpreted as he intends.

Jefferson (1979 cited in Polanyi 1985: 34) calls the talk leading up to the story, including the preface and its acceptance by other participants, entrance talk. The entrance talk preceding a durable PEN may be much

more involved then before other stories. Through the entrance talk the teller not only notifies the audience that he will tell a story, but also relates the story to the previous conversation. Because the storyteller must create a bridge from conversation to durable PEN, he may even need to make several attempts before he is successful. Thus, the first abstract or preface may actually occur much earlier in the conversation than the complete story.

The conversation preceding New Years Eve is an example of how a storyteller can manipulate a conversation in order to tell a story. First, as we were talking with our friend Jan, Rod indirectly brought up a topic (line 3) that would inevitably lead to stories, the anniversary of the two of us being reunited in Yugoslavia after a long off-and-on relationship.

1. B: Isn't that funny that he's never been to North Dakota?
2. I've been to North Dakota.
3. R: Did you tell her did you tell her did you tell her?
4. B: Did I tell her what?
5. That it's nineteen years?
6. That this is our anniversary
7. [Nineteen years together
8. J: Oh oh I knew it yesterday I knew that
9. B: Did I say that yesterday?
10. J: Yes congratulations
11. R: [Nineteen years ago today she came to her senses.
12. J: Yeah? (laughing)
13. B: [That's Rod's--that's Rod's version of the story it wasn't quite that way.

Asking me whether I had told her made him seem more modest, but still obligated her to show interest in the occasion (lines 8, 10, 12). A bit later in the converstion, he then gave an abstract of a story of mine (lines 36-43) which he ended with a preface to his own story (line 46).

35. R: I found you a job.
36. lined you up with that=
37. B: That nice guy.
38. R: That nice guy who then chased you around the=
39. J: (laughs)

[
40. R: The kitchen table
41. for two hours
42. J: (laughs)
[
43. R: Til you locked yourself in your room.
44. B: (laughing) Haven't we told you that story?
45. I was=
[
46. R: You knew I'd be there any minute.

Because I was in the room when Rod started my story, he was forced to yield the floor and allow me to tell it myself. This is referred to by Young as the rule of entitlement; that is, the person who experienced the event has priority in the retelling (1985: 180). While I was telling my story, Rod, in fact, left the room. Upon his return, when Jan included him in the conversation again (line 50), he made a second attempt to tell his story by repeating a variation of the same preface (lines 56-58).

49. J: What a guy huh?
50. You found this job?
51. R: (unintelligible)
52. B: Yeah, he found it--this was the great job he found me.
53. J: (unintelligible question)
54. B: Just stayed in that
55. bedroom then until Rod came.
56. R: u:h
57. which was
58. a little bit later than what he'd anticipated.

Because he used third person in referring to himself in the second preface(line 58), it served not only to open his story, but to connect it to the previous story. At this point Jan and I responded by encouraging him to continue (lines 59-62, and 64-66).

59. J: (draws in breath)
60. B: Yeah he was <u>two</u> hours late.
61. J: (laughs)
[
62. B: Ask him why.
[
63. R: <u>Two?</u>
64. B: At least two hours late.
65. Maybe later than that.
66. Where were you Rod?

In relating story entry devices to Wilson's theory of conversation, it can be said that the abstract or preface of a durable PEN serves as an out-mode from the conversation. At this point the audience still has the option not to take it up. Participants--not only the narrator but the audience as well--recognize a move from conversation to narrative and, therefore, begin to operate under rules distinct from those of conversation as a speech event.

In contrast, disposable stories have no abstract/preface at all, and, therefore, no out-mode from the conversation. This is exemplified by the fact that both Archie's Asthma Attack and another disposable story, Theatre Tickets, begin with the orientation section of the story. (See lines 7-8 in Archie and lines 16-19 in Theatre Tickets.)

Theatre Tickets

1. B: Friday night we went out.
2. We went to the community theatre
3. Damn Yankees.
4. D: Was it good?
5. B: Yeah.
6. I--I'm not
7. We won the tickets from Hall-Kimbrell
8. a season pass.
9. D: O:h
10. B: And
11. I was pleased but not thrilled because I don't know if community theatres are ever worth
12. But I thought that this
13. really was fairly well done.
14. D: Mm hm.
15. B: Better than a lot of community theatres I've seen.
16. R: We uh
17. Yeah Hall-Kimbrell throws a
18. beer bust the last Friday of every month
19. annd
20. D: No kidding.
21. R: they raffle off various things
22. D: Every month?
23. R: Yeah.
24. D: Wow!
25. R: Uh last month it was a uh
26. free flight for two to anywhere in the United States.
27. D: Wow!
28. G: Oh wow.

29. R: Uh=
30. B: Now <u>that</u> one I wanted to win.
31. D: Yes!
32. G: (chuckles)
33. D: That's good!
34. R: So
35. and my department tends to win
36. so uh
37. the uh
38. the guy that runs this show
39. gets up there on Friday and says uh
40. uh
41. (louder voice) word has it Hofer has rigged the uh
42. rigged the box again
43. but we'll have our drawing
44. uh for the two free season tickets to the Lawrence
45. Community Theatre (puts hand in imaginary box as though to draw out ticket)
46. Rod Hofer!
47. (general laughter)
48. G: Goodness
49. D: Looks bad Rod
50. Looks bad.
51. R: It looked bad.
52. (general laughter)
53. D: Who got the uh
54. the plane tickets?
55. R: Jim Garvey
56. one of the guys that works for me.

Until all of the participants realize that a narrative is underway, the narrative and the conversation overlap and the audience attempts to maintain a turn-taking pattern (lines 20, 22, 24, 27-28, 30-32). Wilson writes that in any interactive situation, it is possible for different speech events to overlap each other (1989: 55).

Like durable PENs, news stories may have abstracts that change speech events from conversation to narrative. However, there are important differences in the way the abstract fits into the conversation. First, it may be a response to a request for information from the audience, a very common way for news stories to enter a conversation. An example of this type of abstract occured in lines 19-20 of <u>The Shattered Windshield</u>.

19. B: When did Edwardo and Sam come?
20. R: Well Edwardo after they replaced the windshield in his airplane (no falling intonation)

A second way news stories are begun is with a question which serves as a pre-topic check, such as "Did I tell you I almost lost my coat in that Thai restaurant in Washington?" The function of a pre-topic check, according to Wilson, 'is to assess levels of shared knowledge on a particular subject before talk proceeds' (1989: 63). The check is accomplished through a question/answer pair; in the case of news stories, if the answer is positive, the conversation proceeds. If the answer is negative, however, the first person is likely to go on with a news story. For example, if the first person asks, "Did you hear that Ellen's's car was stolen?", and the second person answers, "yes," then they will continue to discuss various aspects of the incident. On the other hand, if the second person says, "no," then the first speaker will explain when and how the car was stolen, and conversation will cease until the narrative is complete.

Although Rod does not ordinarily begin durable PENs with a pre-topic check, it is possible they may occasionally start with a question like, "Have I told you the story about how I almost got fired in New Orleans?" Discussing narrative-style jokes, Wilson (1989) writes that speakers use this kind of question opening when the probability is high that the second speaker has indeed heard the joke before. The same is probably true of durable PENs; because the narrator has told the story many times before, he wants to be sure he is not repeating himself to the same audience, a likely possibility. However, a question check before a durable PEN still must be related to the topic of conversation.

This brings up a final interesting feature of prefaces/abstracts before news stories; that is, they can be remarkably abrupt in contrast to the prefaces of durable PENs, which are carefully fit into the on-going talk. In telling news stories the narrator assumes that they will have relevance to the audience simply because of their currency. Under this assumption there is no need to connect the story to the preceding conversation at all, as in the following example where the story appears as a change of topic in line 6.

Excerpt from Meeting With the Boss

1. B: A Syrian orphan
2. makes his way to the United States and makes good.
3. /
4. B: But it starts out about a twelve-year-old boy.
5. /
6. R: Today uh
7. you know James
8. and Edwardo went over to talk to
9. Sanford about his numbers being all screwed
10. B: Mm hm
11. R: And they finally got Sanford to agree that our numbers were right and his numbers were wrong
12. and see what the situation was and so what we're saying is that there aren't extra people here to send out to the branches.
13. B: Mm hm
14. R: Fine.

The story Meeting with the Boss begins with only "Today,uh" (line 6) as a preface and it follows immediately after a conversation about a book I wanted my son to read. "Today" served as a sufficient preface to notify the audience that this would be a report of something that happened during the day. Thus, the preface to a news story can be a topic change, not related to the previous conversation at all. This is an important difference between the three types of stories. Because the narrator carefully prepares the way for durable PENs, they cannot abruptly change the topic like news stories can. The only way they could change the topic would be for the narrator to add a misplacement marker (Sacks and Schegloff 1974 cited in Young 1985: 139). This term was coined to label comments such as, "I know this is off the topic, but I've got to tell you this great story." Disposable PENs, on the other hand, do not change the topic but enter as a continuation of the topic, even when following a pause. In constrast, news stories frequently begin as topic changes.

The variations in means of story entry which I have described occur as a result of different purposes for telling the stories, as well as the number of times the story has been told and the consciousness of the narrator of the act of storytelling. Variations in other features can also be observed. For example, the interaction between audience and narrator is different

with each story type. There may also be differences in the orientation, evaluations, and codas. Clearly, all of these observations require further verification. It will be important to obtain data from other conversational storytellers in order to examine the similarities and differences among story types and their appearance in conversation.

APPENDIX I

FIGURE 1 **Structural Analysis of a Durable PEN**

New Year's Eve

Entrance Talk			
	Preface	56 R:	uh
		57	which was
		58	a little bit later than what he'd anticipated
		59 J:	(draws in breath)
		60 B:	Yeah he was two hours late.
		61 J:	(laughs)
			[
		62 B:	Ask him why.
			[
		63 R:	Two?
		64 B:	At least two hours late.
		65	Maybe later than that.
	Invitation to continue	66	Where were you Rod?
Result/Main Event			
		67 R:	I was
		68	passed out in the shower
	Evaluation	69 J:	(laughs)
			[
		70 B:	(laughs)
		71 R:	Came to when I ran the hot water tank out of hot water
	Evaluation	72 J:	(laughs)
			[
		73 B:	(laughs)
		74 J:	(laughing) This is the anniversary of that.
Orientation			
		75 R:	No that was--that was New Year's Eve.
			[
		76 B:	That was New Year's Eve.
		77 R:	Yeah it was New Year's.
		78 J:	Oh of course.
	Evaluation	79 R:	[illegible]
		80	[illegible]
		81	uh
		82	I worked in the
		83	warehouse
		84	and so:

BEST COPY AVAILABLE

		85	all of the
		86	uh
		87	not only people from the place that did--people from the
		88	complex that worked with the warehouse
		89	but also all the vendors would come through
		90	and they'd go
		91	a::h
		92	Americano!
		93	Come here come here!
		94	Drink drink! (tips back hand with hand to mouth as though drinking a shot of whiskey)
	Evaluation	95 J:	[illegible]
Complicating action			
		96 R:	So I had a--a drink with each one of the vendors
	Evaluation	97	and they'd get me out of the back room
		98	and
		99	they've only getting one I'm getting one from each.
		100 J:	(laughs)
			[
		101 R:	(laughs)
		102 J:	This is New Year's (falling intonation)
Orientation			
	Evaluation	103 R:	This is New Year's and
		104	uh
		105	you know by two o'clock
		106	which is when I quit=
		107 B:	Which is when he was supposed to meet me.
Repetition of Result			
		108 R:	I was totally plas--I was plas=
	Evaluation	109 J:	And could have saved you.
		110 R:	I was plastered to the gills
	Evaluation	111 J:	Oh my gosh (interjection quickly)
		112 R:	and passed out in the shower (chuckles)
Coda			
		113 J:	Did you have to quit? (addressing question to B and returning to coda of previous story

APPENDIX II

TRANSCRIPTION GUIDE

length of line	determined by breath pauses or phrasing of speaker
indented line	indicates there was no pause
=	absence of obligatory end pause

BEST COPY AVAILABLE

/	longer pause--enough for another speaker to have taken a turn
--	self-correction
capital letters at right margin	beginning of an utterance
.	downward intonation at the end of an utterance
?	upward intonation at the end of an utterance
( )	editorial comments, unintelligible speech, or questionable hearings
[	simultaneous speech
underlined words	emphasis indicated by change in amplitude
: following a vowel	lengthened vowel
double consonant	lengthened consonant

Speakers:

R	Rod, my husband
B	myself (stands for Berta, a shortened form of Roberta)

Other capital letters are the first initial of names of friends or family involved in conversations.

REFERENCES

Jefferson, Gail
1979 "Sequential Aspects of Storytelling in Conversation." In Studies in the Organization of Conversational Interaction, edited by J. Schenkein, pp. 219-248. New York: Academic Press.

Labov, William and Joshua Waletzky
1967 "Narrative analysis: Oral versions of personal experience." In Essays on the Verbal and Visual Arts, edited by J. Helm, pp. 12-44. Seattle: University of Washington Press.

Polanyi, Livia
1985 Telling the American Story: A Structural and Cultural Analysis of Conversational Storytelling. Norwood, N.J.: Ablex Publishers Corporation.

Sacks, Harvey
1970 Unpublished lectures. Lecture 2. University of California, Irvine.

1972 "On the Analyzability of Stories by Children." In Directions in Sociolinguistics: The Ethnography of Speaking, edited by John Gumperz and Dell Hymes, pp. 325-345. New York: Holt, Rinehart and Winston.

Sacks, Harvey, Emanuel A Schegloff, and Gail Jefferson
1974 "A Simplest Systematics for the Organization of Turn Taking For Conversation," Language 50: 696-735. Revised in Schenkein 1978.

Schegloff, Emanuel and Harvey Sacks
1974 "Opening up Closings." In Ethnomethodology: Selected Readings, edited by Roy Turner, pp. 233-264. Harmondsworth: Penguin Books.

Schenkein, J., ed.
1978 Studies in the Organization of Conversational Interaction. New York: Academic Press.

Stahl, Sandra K.D.
1977a "The Oral Personal Narrative in its Generic Context," Fabula 18: 18-39.

Tannen, Deborah
1984 Conversational Style--Analyzing Talk Among Friends. Norwood, N.J: Ablex.

Wilson, John
1989 On the Boundaries of Conversation. Oxford: Pergamon Press.

Young, Katharine Galloway
1987 Taleworlds and Storyrealms. Dordrecht: Martinus Nijhoff Publishers.

IT'S LIKE, 'WHAT'S HAPPENING IN THE EVOLUTION OF LIKE?': A Theory of Grammaticalization

Teresa Meehan

Abstract: In standard American English, the word *like* has several senses associated with it, the earliest of which dates back to the 14th century according to the OED. Some of these senses, however, reflect more recent developments in the language and suggest that the lexical aspects of the word are changing in the direction toward a more grammatical function. This paper presents a historical analysis of the use of the word *like* and posits a possible grammaticalization path in an attempt to explain the current usage of like in modern-day English.

Introduction

This paper is concerned with language change, and in particular, the use of the word *like* in current American English. The type of change to be illustrated here is termed 'grammaticalization' which has been defined by Christian Lehmann as a process which may not only change a lexical into a grammatical item, but may also shift an item from a less grammatical to a more grammatical status. 'Grammaticalization is a process of gradual change, and its products may have different degrees of grammaticality' (Lehmann 1982:13). Therefore, a diagram of a typical grammaticalization path represented as stages of change is given in example (1) as follows:

(1) lexical item ---> free grammatical morpheme
---> affix

I will discuss this process in more detail in a later section of this paper.

Kansas Working Papers in Linguistics, 1991, Volume 16, pp. 37-51

In 1988, Robert Underhill wrote a paper in which he claims that in a nonstandard variety of English, the word *like* functions as a particle that marks new or focused information in a sentence or clause as in his example that follows:

(2) But then the first day of our skiing, you know we're gettin all excited to go skiing the first day it's *like* snowing ... blizzard snowing

According to Underhill, '*Snowing* and *blizzard snowing* are new information here, and significant information, since they set the mood and conditions for subsequent events' (Underhill 1988:235). Underhill also notes that he has noticed a decline in this particular usage of *like* and believes it may now be becoming archaic.

Contrary to Underhill's prescriptive claim that the above use of *like* is 'ungrammatical' in standard English (assuming he is referring to standard American English), in this paper, I will argue that this relatively new usage of *like* is still very much alive rather than becoming archaic. In addition, I will argue that this new meaning of *like* has developed out of an older meaning which is becoming more generalized in the same way that other grammatical morphemes change their meaning in the process of grammaticalization. All of the data to be used as examples throughout this text I collected through interaction in conversational discourse. At times, I was a speaking participant and at other times an acknowledged hearing participant. None of the example sentences are ad hoc, but rather, they are actual utterances made by native speakers of American English. Because of the unsystematic way in which I collected the data, it is not appropriate for quantitative analysis, and so the data has not been analyzed for the frequency of use according to age group or sex.

In this paper, I will examine the major uses of *like* in the chronological order in which they developed (according to the OED), and the proper mechanisms of change that can explain the sequence of developments. I will show how changes in the syntactic constituents that could occur within the scope of *like* were accompanied by changes in the meaning of *like* (or maybe vice versa).

Meaning Variations

The Old English form of the adjective *gelic*, where the morpheme *ge* (or ga) corresponds in meaning to the Latin *com-* as in *conformis* plus *lic* from the reconstructed proto-European form **liko* meaning body or form, originally had the meaning of 'having the form of'.

According to the OED, the comparative sense of *like* which I will refer to as the 'similar to' sense is an adverbial extension of the adjectival use which means 'in the same manner or to the same extent as'. This form of *like* is found in written texts as early as the 14th century. Some examples of the earlier usage are given in (4a) and (b) as follows:

(4a) MADAME D'ARBLAY (1779) Diary & Letters

She sings *like* her, laughs *like* her, talks *like* her.

(b) JOHN MORLEY (1886) Voltaire

The name of Voltaire will stand out *like* the names of the great decisive movements in the European advance.

Some examples of the 'similar to' sense as it is used in modern English are given in (5a-d).

Similar to:

(5a) ... they stick'em right to the glass *like* Garfield cats.

(b) ... it's kinda *like* playin' house.

(c) That sounded *like* a lecture.

(d) ... now we're *like* brother and sister.

Note that in each of the above examples, the scope of *like* includes a post-verbal noun phrase. By the scope of the word *like*, I mean the domain of the operation of the semantic element. The positioning of *like* in the sentence is never random although to some hearers it may seem so.

Often times, *like* is interpreted as having a reading which I will refer to as 'approximately'. Dating back to the 14th century, the usage of *like* in the sense of relating approximation was used as 'something like' as in example (6).

(6) JEREMY BENTHAM (1793) Works

The L600-a-year ... I do not look upon as anything *like* adequate.

This last example is still possible in modern English, however, perhaps a more common usage is in the context of quantity phrases. This reading can be thought of as a specific interpretation of 'similar to' which is illustrated in examples (7a-d).

Approximately:

(7a) I wanted it *like* about this short.

(b) I wrote it in *like* ten minutes.

(c) There was *like* ten tornadoes that touched the ground.

(d) ... it cut *like* a hundred-mile path.

The specific interpretation of 'similar to' is reflected in the scope of 'approximately' in that *like* in these cases occurs before quantitative noun phrases which is also where the new information is generally located.

Another meaning that I believe developed from the sense of 'similar to' is that which I will refer to as the 'as if' reading. It also has a comparative usage and as I pointed out in the case of 'approximately', its function can also be interpreted as being more specific than 'similar to'. An example of its early use is found in (8) as follows:

(8) Harper's Magazine (1886)

None of them act *like* they belonged to the hotel.

Examples of the modern English usage follow in (9a-d).

As if:

(9a) *Like* you could afford the house I want.

(b) ... and it was *like* she cut a lot more of mine.

(c) ... it was *like* I was watching someone else do it.

(d) ... it's not *like* I don't love you guys.

The specific interpretation of 'as if' differs from that of 'approximately' however, in that its scope is much broader.

The 'as if' reading of *like* takes an entire clause. One might also note here that *like* functions somewhat like a complementizer in that it cannot be taken out before the clause.

Another meaning of *like* that didn't come into use until the 19th century is one I will refer to as 'for example'. Here, *like* is introducing a particular example and can often be replaced with the phrase 'such as'. An illustration of this usage is given in example (10).

(10) ROBERT LOUIS STEVENSON (1899) Letters

A critic like you is one who fights the good fighting, contending with stupidity.

Examples of current usage are given in (11a-f) as follows:

For Example:

(11a) You go through a text *like* a Shakesperean play.

(b) Tell *like* maybe how you got interested in it.

(c) ... it might be difficult if you start *like* in the fall.

(d) There are some other examples of past habituals *like* ... *like* when we use...

(e) Do you have *like* a mint or something?

(f) *Like* what?

The scope for the meaning of 'for example' is also much broader than that of 'similar to'. As is illustrated in the previous examples, the scope can include a noun phrase, a prepositional phrase or an entire clause.

Also, it can be noted that the information contained in the scope of the word *like* tends to be the new information in which the listeners attention should be focused. In these examples as in all of those given up to this point, *like* cannot be removed; therefore, *like* still has enough meaning that it cannot be considered simply a marker of information organization. However, the broadening of the scope is an indication that the meaning is becoming more generalized.

The various meanings of *like* that have been discussed so far all have fairly concrete definitions associated with them. While they serve as a general overview of what might be considered the traditional uses of *like*, not every possible usage has been discussed. For example, *like* is used in mathematics as an adjective for describing 'like quantities or like signs'. In addition, there is the suffix '-like' which is used when forming adjectives and adverbs. According to the OED, this suffixal form developed from the 'similar to' sense and may now be appended to almost all nouns including proper names.

The most recent usage of *like* cited in the OED refers to a North American colloquialism of the following construction: 'like' + adj. as in (12a-b).

(12a) I had to wash my hair because it was *like* gross.

(b) I think he's *like* borderline.

A construction of this type appears similar to that illustrated under 'approximately' except that it occurs before adjectives rather than quantitative noun phrases. The main difference

with this construction as opposed to the previous senses that I have discussed is that *like* in this sense seems to be bleached of most of its lexical meaning. In both sentences (12a) and (b), the lexical item *like* could be removed and the overall semantics of the utterance would remain unchanged. Therefore, I would like to hypothesize that the main function of *like* in these constructions is to focus the listeners attention on specific information.

In addition, the OED claims that there are other less analyzable constructions. This is where Underhill's 'ungrammatical' use of *like* comes in. It is true that in this sense, *like* does not seem to have a concrete definition; however, this is added support for a hypothesis that says the meaning is becoming more generalized and its usage is becoming more grammatical than lexical. As Underhill hypothesized, *like* in the constructions illustrated in (13a-i) signals new or focused information in the sentence or clause.

Focus:

(13a) She *like* covered the mirror.

(b) Yeah ... and *like* he's really gonna be drownin' his sorrows tonight.

(c) I think he's *like* borderline.

(d) She's *like* really pregnant.

(e) We could do *like* sports comic books.

(f) I was *like* throwing up all morning and night.

(g) I want to *like* minor in communications.

(h) *Like* it was 25 years ago when I had him as an instructor.

(i) ... it's *like* about general knowledge.

What each of the above examples has in common is that *like* is used to put focus on various parts of the sentence, whether it is a simple noun phrase or an entire clause. Notice that all of the sentences would still be grammatical even if *like* were omitted completely.

The function of *like* as focusing on new information begins to be seen in the 'approximately' sense. The quantifying information in the noun phrase is the information to be focused upon. From there, one might be able to see how the focusing function is broadened to include not only a noun phrase but also a prepositional phrase or an entire clause in the 'for example' sense. Although as was pointed out earlier in this paper, where *like* in the 'approximately' and 'for example' senses still has enough semantic content that it cannot be removed from the sentence, it is possible to posit that because *like* is positioned right before the new information it is in the process of being reanalyzed as a marker of that new information. In the cases of the *like* + adjective constructions as well as the focus constructions, *like* is semantically bleached enough that it is really more of a grammatical item marking focus. In the latter two constructions, *like* can be completely removed from the utterances and the change in meaning is limited to less focus being placed on a particular portion of the utterance. For example, see (14) and (15).

Like with semantic content:

(14) That sounded *like* a lecture.
*That sounded a lecture.

Focus marker:

(15) She's *like* really pregnant.
She's really pregnant.

Where *like* acts like a focus marker and is removed, the focus of the sentence is more likely to be placed on the subject 'She' rather than the adjectival phrase describing the state of being.

There is another usage of *like* that needs to be addressed. That is, the use of *like*, as illustrated in examples (16a-f), is strongly associated with the quoted expression that follows in each case. While assuming an actual expression is uttered, what appears in the quote may or may not have been expressed vocally at a certain point in time.

Quote:

(16a) I'm *like* 'What's going on here?'

(b) It's *like* 'How am I supposed to know?'

(c) I'm calling Melissa but she's *like* 'No!'

(d) We kinda felt *like* ... 'Well, (laugh) we had done it.'

(e) ... and he's *like* 'Well I don't think I'll be here next year.'

(f) I was *like* 'Uh - uh!'

This usage of *like* appears to be more grammaticalized than the 'focus *like*'. Its construction has a fixed position, namely, before an embedded clause which is interpreted as a quote. As an item becomes more grammatical, its position will become fixed. Where 'focus *like*' is still considered a free grammatical morpheme because its scope can vary between a

post-verbal noun phrase and an entire clause, a grammatical morpheme that is fixed is more likely to become an affix as it passes through the stages of grammaticalization.

The problem lies with trying to figure out the origination of the 'quotative *like*'. I hypothesize that it begins with the sense of 'as if', where *like* functions as a quasi-complementizer in that its scope already encompasses an entire clause. In other words, its position has already been fixed and because it has undergone some semantic bleaching, *like* which occurs before quotes focuses on the information contained in the quoted clause.

I mentioned that the information contained in the embedded quote following *like* in these constructions is not necessarily an exact replication of an utterance that was actually spoken. In a related study done by Patricia Mayes (n.d.), from the University of California, Santa Barbara, she discovered that many quotes in informal spoken discourse are invented and that their main function is as dramatizations. She reports that the most reliable way to distinguish a direct quote from an indirect quote is by the verb tense. Direct quotes have a deictic center that is the same as the original utterance. 'In telling about a past event, the speaker may use present or even future tense in the quote.' In contrast, indirect quotes have a reference point according to the speaking time.

According to Mayes, there are various psychological reasons for a speaker to use direct quotation in discourse. Among these, the direct quote is used to 'highlight' the main point of narratives and emphasizes the involvement of the speaker in the story. The actual content of direct quotes is found to be very rarely an exact replication of an utterance that was actually spoken at some point in time, but rather, is more often made up for the purpose of expressing affect. Mayes (n.d.) explains:

> Speakers will choose whether to use a direct or an indirect quote depending on how much affective information they want to convey. In the context of casual conversation ... speakers are more likely to maximize the amount of affective information conveyed.

Referring back to the type of quotes that are in the scope of *like* in this context, we can see that they do in fact behave like the direct quotes described by Mayes. In all of the examples that I have here, (16a-f), the tense of the verb in the quoted clause, if there is a verb present at all, is in the present tense with the exception of clause (d). The fact that the quotes are generally very emotive suggests that their purpose is to express affect and it is fairly certain that the quotes are reflections of feelings rather than exact replications of previous utterances. One might say that the purpose of *like* in these constructions is to focus on the highlighted information expressed in the quote. In addition, *like* is still reflecting the old 'similar to' meaning since the information contained in the quote is not exact.

Conclusion

In an historical sense, some interesting things have happened with regard to the development of meaning associated with the word *like* in correlation with the scope of the word. Table (1) gives a synchronic account of this process and reveals an interesting pattern.

Meaning	Earliest Documentation	Present-day Scope
Similar to	1300	(post verbal) NP
Approximately	1590	NP (quant.)
As if	1386	(post verbal or clause) Clause
For example	1886	NP, PP Clause
(no lexical meaning)		
Focus *like*	1959	NP, VP ADJ., Clause
Quote *like*	1960+	Clause

Table (1): Historical Analysis

Table (1) shows that the older meanings have a more limited scope than the newer meanings. Therefore, the newer meanings are able to contain more of the proposition which is relative to a more general meaning. As the scope of the word becomes broader, the semantic content becomes more general. The sense of 'for example' contains its specialized interpretation as well as relating the 'similar to' sense and in addition operates as a marker of new information in a clause.

In the early stage of grammaticalization, the meaning of the lexical item gradually becomes semantically bleached. The full meaning is bleached out during the process of innovative

speech over time and an impoverished form, one which is emptied of its semantic specificities results (Heine, et al 1990). This is precisely what I believe to be happening with the forms of *like* that I have labelled as focus *like* and quotative *like*. I argue that *like* is in the early stage of grammaticalization because its various lexical meanings, which have survived over time, are co-existing with newer more generalized forms.

As a result, table (2) illustrates a proposed grammaticalization path for the lexical item *like*.

1400	1800	1950+	
More Lexical			More Grammatical
----------	----------	----------	---------->
Similar to		Focus	
Approximately		Quotes	
As if			
For example			

Table (2): Proposed Grammaticalization Path

Again, it is important to keep in mind that all of these senses are presently coexisting. Historically, the 'similar to' sense has the earliest documentation and is probably the source from which the specialized interpretations of 'approximately', 'as if', and 'for example' developed. The focus *like* and the quotative *like* are probably not separate developments in that their main functions are to put added emphasis on the new information in the utterance. Evidence of their relationship to the 'similar to' sense is given by the lack of exactness in the quoted information and the fact that in the focus *like* clauses the *like* not only functions to highlight the new information, but also allows the speaker to pull back from the assertion in a rather non-committal fashion.

REFERENCE

Bybee, Joan L. (1985) Morphology: a study of the relation between meaning and form. Amsterdam: John Benjamins

Bybee, Joan L. and Osten Dahl (1989) "The creation of tense and aspect systems in the languages of the world." Studies in Language, 13-1, pp. 51-103

Heine, Bernd, Ulrike Claudi and Friederike Hunnemeyer (1990) "From cognition to grammar: evidence from African languages" To appear in E. Traugott and B. Heine (eds.) Approaches to Grammaticalization Amsterdam: John Benjamins

Lehmann, Christian (1982) Thoughts on grammaticalization: a programmatic sketch Vol. 1, Arbeiten des Kolner Universalien-Projekts, nr. 48, Koln: Universitat zu Koln, Institut fur Sprachwissenschaft

Mayes, Patricia (n.d.) Quotation in spoken English University of California, Santa Barbara

Traugott, Elizabeth C. (1989) "On the rise of epistemic meaning: an example of subjectification in semantic change" Language, vol. 65., no. 1, pp. 31-55

Underhill, Robert (1988) "Like is, like, focus" American Speech 63:3, pp. 234-46

FOLK ETYMOLOGY (IN ENGLISH AND ELSEWHERE)

Adrian Poruciuc

Abstract: Folk etymology is too complex a phenomenon to be dismissed as a mere source of mistakes based on ignorance. The present paper reflects the opinions of a Romanian linguist (and Anglicist) on irregular phonetic-semantic shifts produced by inter-language borrowing, or by intra-language passage from one period to another.

A dictionary definition of folk etymology reads: "A change in form of a word or phrase, resulting from an incorrect popular notion of the origin or meaning of the term, or from the influence of familiar terms mistakenly taken to be analogous" (AHD, s.v. *folk etymology*). What we have here is mainly a negative definition. However, from a psycholinguistic standpoint, the motivation of the phenomenon may appear as positive: such formal-semantic deviations are born of the (less-cultured) speaker's desire for meaningful transparency, i.e. of a quite natural desire for control over language. Romanian peasants, for instance, have tried to make recent borrowings more comfortable: *cooperativa* 'co-operative shop' is forced into the family of the autochthonous *a cumpara* 'to buy', whence the rural *cumparativa;* the literary *neglijent* 'careless' (from French) is sometimes used as *negrijent* (as if derived from the better known *grija* 'care'); the recent *a enerva* slips into *a narava* (as if derived from *narav* 'bad habit'), and so on. It would seem that such academically undesirable shifts (of the same nature as Fr. *chaise longue* > Engl. *chaise lounge*) occur only when words are borrowed from other languages; nevertheless, folk etymologies also appear in the passage from one period to another of one and the same language. Illustrative examples are to be found especially in long-attested languages, such as English.

As is to be expected, folk-etymological shifts are more numerous in periods when (or in areas where) there are no, or very few normative factors, such as schooling and scholarly preoccupation with language. Thousands of such shifts certainly occurred in epochs we cannot check, for lack of written records; so, many of the "normal" words we use today are as they are not by law-like evolutions, but by mistakes of our illiterate ancestors. Generalized literacy will not, however, put an end to folk etymology; the above-mentioned Romanian examples, and much of the material analysed below demonstrate that the phenomenon under discussion is alive and well at the end of the 20th century.

Not only common words, but also proper names can have suffered distortions that have remained unchecked and uncorrected. Many such names are to be found in England. Beside the common

Kansas Working Papers in Linguistics, 1991, Volume 16, pp. 53-58

classification of English toponyms according to origins (pre-Celtic, Celtic, Roman, Anglo-Saxon, etc), we may try a general division into transparent and opaque. Folk-etymological products appear, rather paradoxically, among the transparent names, since, in their deviated forms, they obviously evoke something recognizable in the common language (though that something may be quite far from the "correct" original meaning).

What today appears as *Oxted* was earlier attested as *Oakstead* (this and most of the following toponymic examples are from the final chapter of Pinsker 1963). A certain *Smithfield* should not evoke any Anglo-Saxon smithery, since it comes from O.E. *smethe feld* 'smooth field'. And what once referred to the sea in *Mersea* is not its final part, but the initial one , since the name comes from O.E. *meres eg* 'sea's island' (i.e. genitive of *mere* 'sea' + *eg* 'island'). In such cases we become aware of diachronical twists only when there are records of older versions of one and the same place-name, or when we have sufficient clues for credible reconstructions.

Sometimes, toponymic folk-etymologies should be clarified both diachronically and interlinguistically. For instance, the name of an important Roman colony in Britain, *Eburacum*, may be interpreted as a Latinized form of a Celtic place-name derived from Celt. *eburos* 'yew' (we may also think of the continental tribe of *Eburones;* and the possibility of a pre-Celtic - "Iberian"?- source should not be excluded). The Northumbrian Angles turned the Celto-Roman name into *Eoforwic*, thus making it appear as a transparent compound in their own language: O.E. *eofor* 'wild boar'+ O.E. *wic* 'village' < Lat. *vicus* (cf. Poruciuc 1987:61); without the old attestations, today's form of the same toponym, *York*, would be totally opaque. But, we should not forget, today's clarity does not automatically mean "diachronical correctness": a place now known as *Rosedale* may never have had any roses in it, since, in the language of Scandinavian intruders in Britain, *hrosa dalr* meant 'valley of horses'.

Very interesting are the deviations caused by archaic grammatical markers which have been preserved as (unfunctional) parts of certain names. More recent speakers have tried to integrate those obscure fossils in intelligible constructions. In that vein, today's *Deanham* appears to be a clear member of the British toponymic system; but its earlier form had nothing to do with either *dean* or the toponymic suffix *-ham:* the place was called, of old, *aet denum* 'at the valleys' (the old dat.pl. marker *-um* being later "heard" as *-ham*). A place the English know today as *Bestwall* was not called like that for any special qualities of its walls; its form folk-etymologically derives from O.E. *be eastan walle* 'by the eastern wall'; so, *Best-* grew from a fusion of an old preposition and an adjective. In its turn, the semi-opaque *Attercliff* comes from an O.E. combination of preposition + definite article (dat.sg.fem.) + noun: *aet thaere cliffe* 'at the cliff'. We

may observe that place-names have been more successful than common words in preserving particles of archaic grammar (in form, though not also in meaning and function).

In the field of appelatives one can also detect folk etymologies of interlinguistic extraction, as well as of the category that may be diachronically accounted for. For instance, *buttery* 'a pantry or cellar' only seems to be related to *butter:* for a correct etymology, we should go rather to *bottle*, since *buttery* comes from O.Fr. *boteri*, derived from O.Fr. *bot* (< Lat. *buttis* 'casket'), which is also the origin of O.Fr. *botel*, wherefrom *bottle* in English. As regards internal (inter-period) shifts, a good example is today's *sandblind*, which might be misinterpreted as an echo of Sand-Man nursery traditions, or of some sand-in-your-eyes ritual; in fact, *sand-* in the (now) semantically obscure compound is a distorted development of O.E. *sam-* (a cognate of Lat. *semi-*); *sandblind* once meant simply 'half-blind'.

Many of us may remember Lewis Caroll's ever-sleepy *dormouse* (at this point I had to correct my own mis-typing: *doormouse!).* Dictionaries are quite uncertain about the name of that rodent, but there seems to exist some acceptance of a derivation from Fr. *dormir* + Engl.*mouse* (a kind of zoologically sustained etymology, since the animal is rather nocturnal and, as a hibernator, it is often found asleep during the cold season). I think that, in fact, we do not have a "real" French-English lexical contribution here, because the *-mouse* part of the compound represents rather a popular interpretation (and Anglicization) of the final part of Fr. *dormeuse* 'sleeping one'; basically, it is the situation of a French derivative (*dorm-* + suffix *-euse*) wrongly divided and made transparent by the English common-speaker's mind. Etymologically, Engl. *dormouse* may be regarded as a correlative of Rom. *dormeza* 'sofa', itself a recent borrowing of Fr. *dormeuse.* The analysis of *dormeuse* by the English mind may look strange (to linguists); or, at least, stranger than the analysis of *Hamburger (steak),* which led to the impressively productive *burger* in American English. I dare suppose that only few contemporary Americans are aware of a link between the German city of Hamburg and their daily *cheese-, fish-,* or *whatever-burgers.* What I am quite certain about is that the misapprehended *ham-burger* ensured, for the second member of the supposed "transparent compound", a position in the English word-formation pool; and the process was sustained by the evocatory power of the pseudo-*ham* in the primeval *Hamburger steaks.*

There are instances of English doublets produced by folk etymology: one word may stand for the preservation, by normative factors, of a form as close to the original as possible, while the other member of the doublet (i.e. the one that looks more English) represents the popular usage. A good illustration is *asparagus/sparrow grass*: the latter came to be so widely used that it forced its way into some dictionaries. And we should not be surprised if some English

speaking wit offered even some logical explanation, such as: 'a herb beloved by sparrows'; because there are many cases of phonetic-semantic alterations suggested by actual features of the referent. For instance, I suspect that M.E. *ellebre* (< O.Fr. < Lat.-Gk. *elleborous*) became today's *hellebore* most probably because it is "hellish" (i.e. poisonous). But *shamrock* (an Irish national emblem) can certainly not be interpreted as a "sham rock"; the diminutive derivative from O.Ir. *semar* 'clover' suffered a misleading Anglicization. In other cases we may discover funny "pleonastic" developments: e.g. *chickpea* is the English name of an Asian-Mediterranean plant with pea-like seeds; in older forms of the word, it was the opening, not the final part which meant 'pea', since the M.E. version was *chiche* (< O.Fr. < Lat. *cicer* 'pea' - cf. *Cicero*!); one may, unscientifically, conclude that some Modern English chick semantically swallowed the Roman peas.

Maybe the best collection of folk etymologies could be obtained by a thorough study of overseas English. By moving to new environments, less educated English speakers were bound to get into lexical want when they came upon lots of unfamiliar things. Two main sources were at hand in such situations: (1) the former was the linguistic material the immigrants brought with them and cast into new coinages, whenever necessary (e.g. unfamiliar plants of North America were metaphorically called *black-eyed Susan, blue-eyed grass, Dutchman's breeches, jack-in-the-pulpit*, etc); (2) the latter source were the idioms of Red Indians, Aborigines, Maoris, or of earlier European immigrants (Spanish, French, Dutch); foreign words were often folk-etymologically deformed when Anglicized. For instance, a North American rodent is called *woodchuck*, not because it lives in the woods, but by an "adjustment" of Cree *ocek* (< proto-Algonquian **wecyeka* 'fisher'). An Australian parakeet known as *budgerigar*, colloquially *budgie*, has a similar status. Linguists may demonstrate that the bird's name comes from Aborig. *budgeri* 'good' + *gar* 'cockatoo', but , in the Australian speaker's mind, *budgie* certainly evokes *to budge* 'to move, to alter position', meanings sustained, probably, by the actual behaviour of that kind of bird; *budgie* found its subconscious correlative, just as the Oriental loanword *mohair* "naturally" found its rhyme in English, very much because it happens to designate a *hairy* material (I may go even go further, and assume the existence of a *mow-hair* form in the English-speaking subconscious). To come back to bird-name interpretation, *cockatoo* itself has only a folk-etymological relationship with Engl. *cock*, as the former derives (through Dutch) from Malay *kakatua* (cf. Dutch *kakatoe* and Germ. *Kakadu*, both opaque and closer to the original than Engl. *cockatoo*).

Sometimes folk-etymological deviations may not only be fixed in a (receiving) language, but also become international by subsequent borrowing. Old examples are *orange* and *lute*. Arab. *naranja* (< Pers. *naranga*, of Indian extraction) was better preserved by Span. *naranja*; but in Old French the word became *orange*, either because the initial

n- was misinterpreted (by French speakers) as some kind of indefinite article, or by contamination with O.Fr. *or* 'gold' (in connection with the actual color of the referent); English then borrowed the already deviated version from French. In its turn, *lute* comes from O.Fr. *leut*, a borrowing of Arab *al-'ud* (literally 'the wood', indicating the material the musical instrument was made of). The process here is different from the one which produced *orange:* the Arabic article was felt as part of the word, which may account for the perpetuation of initial *l-*. I may observe that, through another filter (Turkish or Greek), Romanian acquired *alauta/lauta* > *lautar* '(Gypsy) musician', which reflect similar adjustments of foreign lexis. A quite recent international success is that of *mangrove*: the beginning of its European career was the borrowing, by the Portuguese, of a word (transcribed as *mangue*) from a Caribbean idiom; from Portuguese, the word entered English, where it was made to remind of the familiar *grove*; then the new coinage was borrowed by French, and from there we now have it in Romanian, as *mangrove*, with the spelling pronunciation /man'grove/.

Since I have already touched the phenomenon of dictionary-fixed folk etymologies, I may add that standard English contains remarkable examples in that respect. Famous fixations were performed especially during the Johnsonian epoch, when grammarians and lexicographers became more authoritative (as standard makers) than poets and playwrights. Some Early Modern English scholarly "corrections" affected spelling only: M.E. *soverein* (cf. Milton's *sovran*) was adorned with an extra letter, becoming *sovereign*, as if related to *reign*, though the O.Fr. source-word had derived from the family of Lat. *super*, not from that of *rex* and *regnum*. By a similar cosmetic intervention, O.Fr. *amiral* (from Arab. *amir-al*, literally 'commander of') was "Latinized" as *admiral* in English, the mistaken association being with Lat. *admirari*; in this case, the graphemic bookish addition (like the "restored" *c* of *perfect* < M.E. *parfit* < O.Fr.) did not remain mute: the *d* of *admiral* is now pronounced, unlike the Latinizing *g* of *sovereign*, or the *b*'s in *debt* and *doubt* (< M.E. *dette* and *doute*, both deriving from O.Fr., not directly from Latin). What term should one apply to such deviations? "Scholarly folk etymologies" would sound rather paradoxical. It is true that, through centuries, scholars have taken pains in organizing and explaining lexical material, but examples like the ones above suggest that even the most serious dictionaries may perpetuate old errors. Psycholinguistically again, it is hard to say which is easier "to forgive": the popular integrative tendency (which tries to turn alien words into familiar ones), or the scholarly unjustified re-spellings, meant to suggest origins of prestige.

The other day I was wondering at the resemblence between Rom. *damigeana* and its English correspondent, *demijohn*. I suspected that the latter half of the English word was folk etymological.

Dictionaries (AHD, OED) inform us that the most credible source is a metaphorical *dame Jeanne* of France (so, *demijohn* should not suggest that the English are inclined to use only half a john). The *dame-Jeanne* explanation looks Roman(t)ic enough, and it becomes even more so when one finds out that Rom. *damigeana* is supposed to be a borrowing of It. *damigiana* (cf. DEX), or, according to others (cf. Sala/Vintila-Radulescu 1981;197), the Romanian word comes from Persian, through obscure intermediaries. I find that good old *bottle* is safer, to be sure.

REFERENCES

AHD - The American Heritage Dictionary of the English Language, 1973

DEX - Dictionarul explicativ al limbii romane, 1975, Bucuresti: Editura Academiei

OED - The Shorter Oxford English Dictionary on Historical Principles, 1962

Pinsker, H.E., 1963, Historische Englische Grammatik, Munchen: Hueber

Poruciuc, A., 1987, A Concise History of the English Language, Iasi:UP

Sala, M. & I. Vintila-Radulescu, 1981, Limbile lumii, Bucuresti:Editura Stiintifica

LIQUID ASSIMILATION IN HAVANA SPANISH

Fenfang Hwu

Abstract: There has been a consensus that Laryngeal and Supralaryngeal nodes are located under the Root node and Place node is under the Supralaryngeal node (Clements 1985, Sagey 1987, Archangeli and Pulleyblank 1986). There is, however, very little consensus on where manner of articulation features belong. It will be argued in this paper, basing on spreading and delinking process occurring in Liquid assimilation in Havana Spanish, that 1) the [continuant] feature should be located under the Supralaryngeal node 2) [continuant] and place features form a natural class node: Oral Cavity as proposed in Clements (1987) 3) manner features and place features do operate together in the delinking and spreading operations.

According to Guitart (1976, 1980) and Zamora & Guitart (1982), in the educated Spanish of Havana, the distinction between [l] and [r] in syllable final position is lost. The following data show this phenomenon.

(1) (Guitart 1976, 1980; Zamora & Guitart 1982; Harris 1985)

a.L + Labial

ser bobo, el bobo	[bb]
ser pobre, el pobre	[bp]
ser mata, tal mata	[mm]
ser fino, el fino	[ff]

b.L + Coronal

arde, falda	[dd]
ser té, el té	[dt]
ser nata, tal nata	[dn]
farsa, falsa	[rs]
corcho, colchón	[dč]
ser rojo, el rojo	[rr]
Carlos, estar lejos	[ll]
ser droga, tal droga	[dd]

Kansas Working Papers in Linguistics, 1991, Volume 16, pp. 59-75

ser tres, el tres	[dt]
c.L + Palatal or Velar	
el ñame, comer ñame	[ññ]
Isabel Llerena	[y̬y̬]
y saber Llerena	[y̬y̬]
purga, pulga	[gg]
parco, palco	[gk]
el jamón, dar jamón	[hh]

The above data show that liquids assimilate to the following segments in some way. Retroflection occurs only when the triggering segment of assimilation is coronal. However, when the liquid is followed by a consonant cluster or palatal the retroflection does not occur. With the triggering segment being labial or palatal, we get geminates [mm] and [ññ] but not when the triggering segment is an alveolar nasal: *se/dn/ata.* From the above observations we conclude that coronals except palatals behave asymmetrically with respect to the other consonants.

It has recently been argued by Kiparsky (1985) and Avery & Rice (1988, 1989) among others, that, beside being more frequent, coronals are more prone to undergo assimilation processes than any other place of articulation. Puel, Nespoulous, Bonafé and Rascol (1980) point out that coronals also pattern in a unique way in aphasic speech, thus providing external evidence in favor of the claim that coronals have a special status. Avery & Rice (1989) have claimed that the special status of coronals lies in the fact that they lack a specification for place features in underlying representation. According to them the behavior of coronals in Catalan presents one evidence for the underspecification of the Coronal node.

(2) (Kiparsky 1885)

a. /n/

so[m] pocs	'they are few'
so[m̩] feliços	'they are happy'
so[n̪] dos	'they are two'
so[n] sincers	'they are sincere'
so[n̩] rics	'they are rich'
so[n,ʒ]ermans	'they are brothers'

so[n,ʎ]iures	'they are free'
so[ŋ] grans	'they are big'

b. /m/

so[m] amics	'we are friends'
so[m] pocs	'we are few'
so[ɱ] feliços	'we are happy'
so[m] dos	'we are two'

The above data show that the underlying alveolar /n/ assimilates to the point of articulation of the following segment. But the underlying labial /m/ assimilates only within its own primary content node, namely labial and labiodental. According to Rice & Avery (1989) the phonology is restricted to at most three operations: spreading, delinking, and OCP–based fusion. Spreading is considered as a language–particular operation which may include trigger and target conditions as well as a directionality parameter. The theory of spreading that they adopt is that

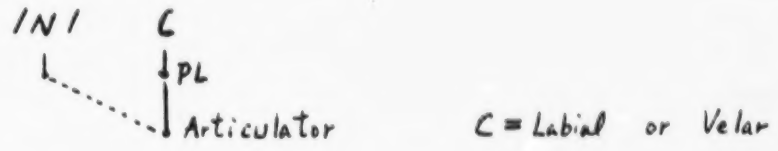
(3) a. spreading can occur only if a structural target is present, and
b. a feature or node spread only to an empty position.

Fusion is an operation which takes identical primary content nodes and fuses them provided that the nodes are non–distinct; i.e. both nodes do not dominate different secondary nodes. Fusion is headed in that the secondary features of the triggering segment are maintained. Normally it takes place under conditions of strict adjacency. Delinking is a neutralization process which delinks content nodes in neutralizing positions such as morpheme–final or syllable–final.

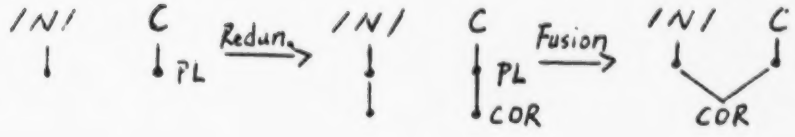
Basing on the notions above, the Catalan case is analyzed (Avery & Rice 1989) as follows. Since coronals are considered as underspecified, two distinct phonological processes are proposed. One process resulting in nasal assimilation is spreading of the place features of the non–nasal segment to an empty Place node. This accounts for the alveolar nasal–labial and alveolar nasal–velar clusters as shown in (4). The other process is fusion. Since the Coronal node is absent underlyingly, when a redundancy rule applies filling in Coronal specification, the structural description of fusion is met and it must automatically apply. This

accounts for the alveolar nasal–coronal sequences (5a). Fusion also account for the forms with labial nasal–labial sequences, but it takes place before the redundancy rule since labials are specified for Labial node underlyingly (5b).

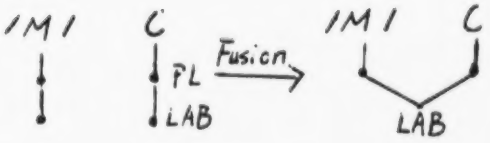
(4)



(5) a.



b.



In standard Spanish, the alveolar nasal /n/ behaves in the same way as in Catalan. However, the labial nasal /m/ and the palatal nasal /ñ/ do not. In Spanish alveolar nasal /n/, labial nasal /m/ and palatal nasal /ñ/ contrast in syllable initial position. In syllable final position only alveolar nasal /n/ occurs underlyingly and it assimilates to the place of articulation of the following segment (6). As shown in (7) another segment in Standard Spanish that shows a similar type of assimilation is alveolar lateral /l/. It assimilates to the following segment when the following segment is coronal.

(6) (Hualde 1989)

co[m]	piedras	'with stones'
co[m̪]	fuerza	'with strength'
co[n̪]	cera	'with wax'

co[n̪]	dientes	'with teeth'
co[n]	latas	'with cans'
co[n̠]	chorizo	'with sausage'
co[n̈]	llaves	'with keys'
co[ŋ]	ganas	'with desires'

(7) (Hualde 1989)

fie[l]	burro	'faithful donkey'
fie[l]	foca	'faithful seal'
fie[l̠]	zorro	'faithful fox'
fie[l̪]	toro	'faithful bull'
fie[l]	novia	'faithful girl friend'
fie[l̠]	chico	'faithful boy'
fie[ʎ]	yegua	'faithful mare'
fie[l]	gorila	'faithful gorilla'

Since coronals are claimed to be underspecified when analyzing the Catalan nasal assimilation (Avery & Rice (1989)) the same analysis can be adopted to explain the nasal assimilation process in spanish. However, lateral assimilation in Standard Spanish does not follow the same analysis. If we claimed, following Avery & Rice (1989), that the lateral /l/ was underspecified, we would get laterals assimilated to every following segment. Therefore the only explanation for laterals not assimilating to labials or velars is that laterals are specified for Coronal node underlyingly, therefore the labial or velar features cannot be spread onto it. Only the fusion rule that fuses identical primary content nodes can account for the assimilation. Some current research assumes that [lateral] is a coronal dependent because laterals are almost always coronals (Levin (1988), McCarthy (1988)). However, Rice and Avery, and Shaw (1991) argue that, while it is true that laterals are normally coronal, it does not follow that [lateral] is a coronal dependent. In this analysis lateral cannot be considered as a coronal dependent since the fusion rule will make sure that lateral share the same place node as the following segment, which would result in losing [lateral] feature if [lateral] was located under the Coronal node. Therefore, we conclude that in standard Spanish alveolar nasal /n/ is underspecified for Coronal node underlyingly and alveolar lateral /l/ is

specified for Coronal node, which means that the default coronal specification applies very early in the lexicon.

In Havana Spanish /n/ and /l/ assimilate but not in exactly the same way as in standard spanish.

(8) a. Havana Spanish /n/ (Guitart 1976)

u[ɱ] boleto	'a ticket'
u[ɱ] francés	'a Frenchman'
u[ŋ] domingo	'a Sunday'
u[ŋ] señor	'a sir'
u[ŋ] chiste	'a joke'
u[ŋ] yerno	'a son-in-law'
u[ŋ] caballo	'a horse'

b. /l/ (Fails 1984)

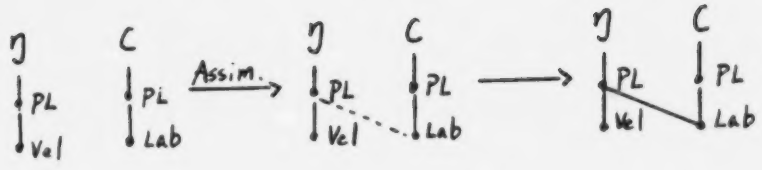
fie[l] burro	'faithful donkey'
fie[l] foca	'faithful seal'
fie[l̪] toro	'faithful bull'
fie[l̲] zorro	'faithful fox'
fie[l̂] chico	'faithful boy'
fie[l] yerno	'faithful son-in-law'

In Havana Spanish every nasal in coda, regardless of the consonant that follows, is normally velarized, although assimilation also takes place in some cases, resulting in a sort of co-articulation where a dorsovelar element is always present (Harris 1969). The velar nasal occurs before dental and alveolar and alveolo-palatal consonants, and, of course, before velars, while a velarized labial nasal occurs before labial and labiodental consonants. In utterance-final position, however, it is only the velar nasal that occurs. This operation can be explained if we consider coronals as underspecified. First, velarization changes all syllable final nasals into velar nasals (9). Then spreading will spread the place features from the following segment onto nasal creating a complex segment (10 a & b).

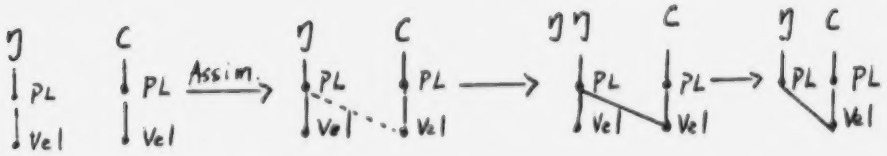
(9) Nasal velarization

$$n \rightarrow \eta \; / \; \underline{\quad}$$
$$\vdots$$
$$\text{Rime}$$

(10) a.

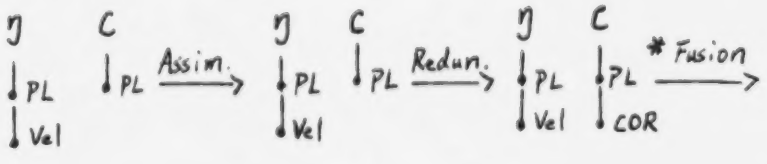


b.



Since coronals are still underspecified for Coronal node when the spreading takes place, they can not spread any features onto the preceding velarized nasal (11). Therefore, we get a phrase like *u[ŋ] domingo.* When redundancy rule applies filling in the Coronal node to the coronal segment, the nasal–coronal sequence cannot fuse because they do not have the same primary place node.

(11)

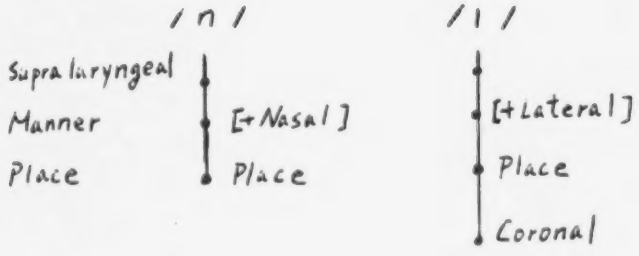


However for this analysis to work we have to relax the second condition of Spreading (3) in such a way that the target of the spreading can be non-empty when spreading will create a complex segment. The spreading of

the dorsal feature to the preceding nasal will create a geminate velar nasal, which will be simplified into one velar (10b). Therefore, we get a phrase like *u[ŋ] caballo*. With respect to the alveolar lateral /l/ the same type of assimilation as in standard Spanish occurs except that palatal does not trigger assimilation. Based on the above analysis we might conclude that except lateral, coronals are underspecified in Havana Spanish. However, palatals which are considered as coronals do not pattern with coronals either. It has been suggested by Keating (1987), based on palatograms that palatals actually have two articulator nodes: Coronal and Dorsal. Lipski (1989) presents distributional and articulatory data to support that in Spanish palatals /ʎ/ and /ñ/ are complex segments i.e., having both Coronal and Dorsal nodes. According to him, *yeísmo* ([ʎ]→[y]) that is sometimes described as "delateralization" and /ñ/–gliding can be represented as delinking of the Coronal articulation node. This then can explain why [ñ] and [y̆] behave differently with respect to the other coronals in the Liquid Assimilation of Havana Spanish (1c). That is because that [y̆] carries only Dorsal node and that [ñ] carries both Coronal and Dorsal nodes and the presence of the Dorsal node forces the presence of Coronal node underlyingly.

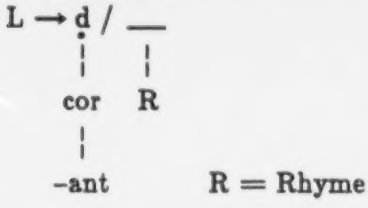
In this analysis we will assume that coronals, except lateral /l/, lack primary content node underlyingly as represented in (12) and will be filled in by redundancy rule at a later stage of derivation. We also adopt the notions of spreading, delinking and fusion proposed by Avery & Rice (1989).

(12)



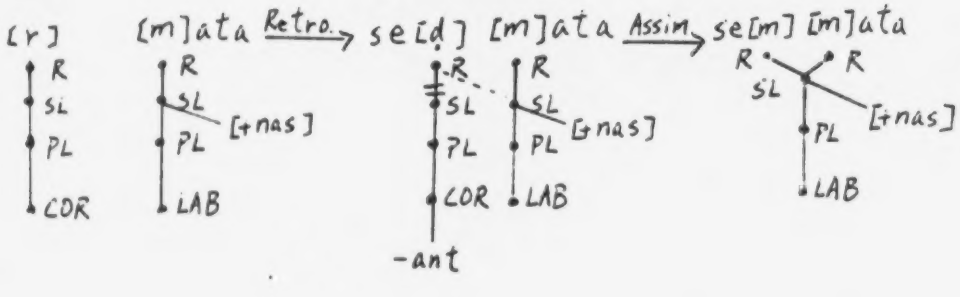
Since in absolute final position liquids either maintain their identity or are realized as a retroflex [ḍ]. Harris (1985) proposes a retroflection rule which changes syllable–final liquids into a retroflex [ḍ]. We will adopt the same rule as shown in (13).

(13) a. abril= abri[l]
abrir= abri[r] or abri[ḍ]
b. Rhyme Retroflection (Harris 1985)



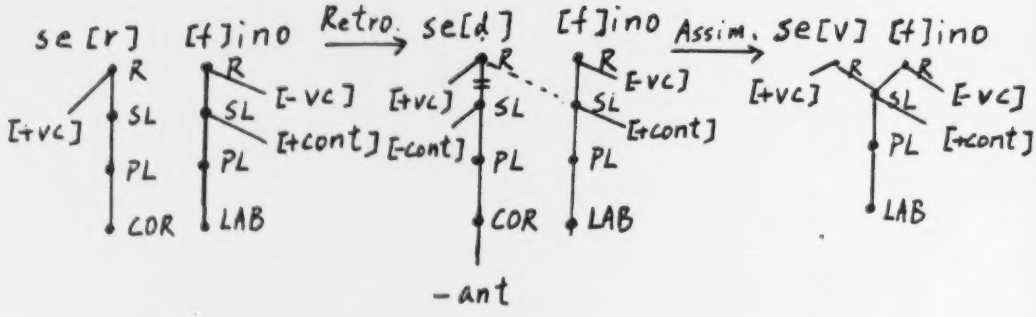
After the Retroflection the second process is that the retroflex segment assimilates to the following segment in place and manner of articulations. This process will involve delinking and spreading. Iverson (1989) proposes the elimination of Supralaryngeal node. This process of assimilation then shows that features under Supralaryngeal node do operate together in a phonological operation, namely delinking and spreading (14).

(14)

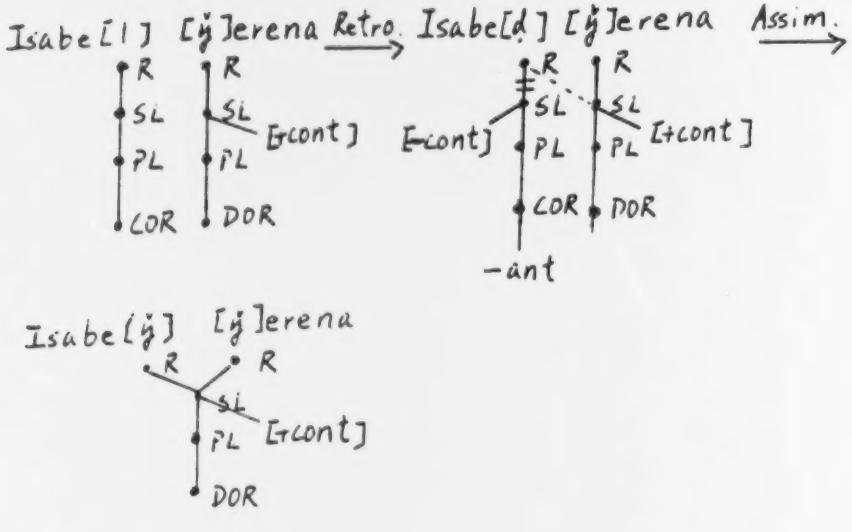


Hence, it supports the existence of Supralaryngeal category advocated most prominently in the work of Clements (1985,1987), Sagey (1986) and Archangeli & Pulleyblank (forthcoming). It also supports the suggestion that the continuant feature is located under the Supralaryngeal node (15 a & b).

(15) a.



b.



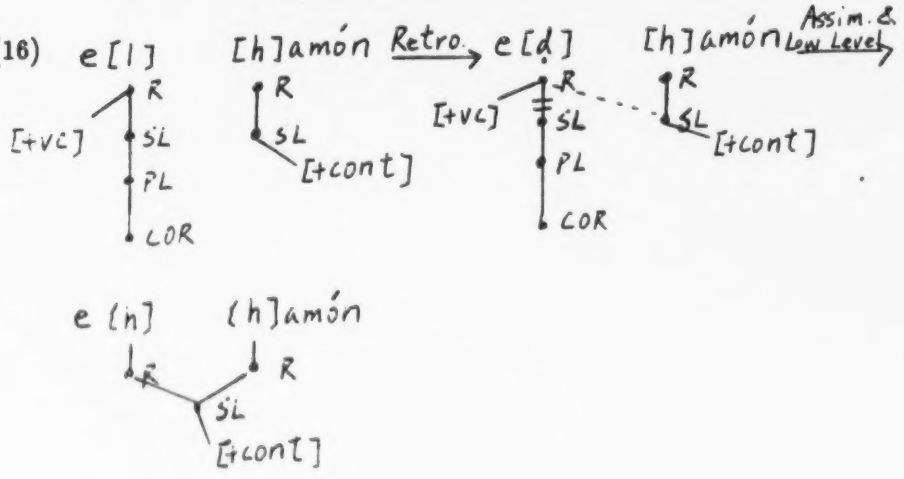
However, this process does not apply to "L + coronal" group. This will be attributed to the absence of Coronal node underlyingly. Hence we suggest that the spreading, besides what have been suggested by Avery and Rice (1989), be restricted by the following constraint: the spreading can occur only when the trigger is specified with the primary content node if it involves place assimilation.

The reason for [v] turning into [f] (15) is that [v] almost never occurs in Havana Spanish (Haden & Matluck 1973). Hence we will need a low level rule to derive the right result.

Low level rule: [+lab, +cont, +stri] → [-voice]

The glottal sound /h/, as is well known, carries with it no specific place of articulation features, but rather adopts that of neighboring vowel. We will need a low level rule which turns a segment with vowel place features and [+continuant] into a [h].
Low level rule: [+cont, vowel place] → [-voice]

(16)



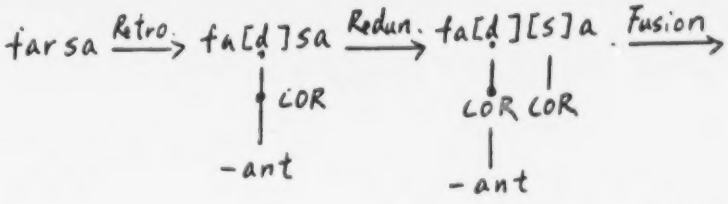
In the following we will present rules that derive "L + coronal" group. These rules are ordered as follows:

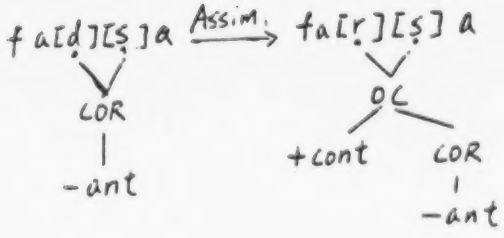
a. redundancy rule that fills in the primary content node with Coronal,
b. fusion, which requires strict adjacency and takes the left segment as the head, and
c. regressive assimilation which takes the Oral Cavity node as a group for assimilation.

Liquid will turn into retroflex [ḍ] before the following coronal segment being filled in with Coronal by redundancy rule, resulting in the context for fusion. The fusion will be headed to maintain the secondary feature of the left segment. The regressive assimilation then takes place assimilating the left segment, which already shares the same place features as the right segment, to the right segment in place of articulation and continuant

feature. This assimilation supports Clements' proposal that Oral Cavity, which dominates Place node and continuant features, is a natural class node. On the other hand it also provides evidence, beside Davis (1989), that continuant is located under the Supralaryngeal node. The derivations of the word *farsa* is shown in the following.

(17)



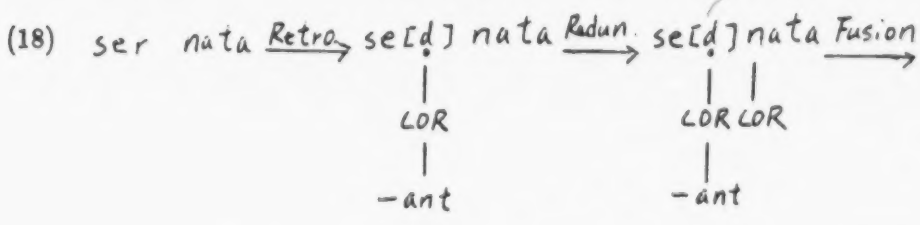


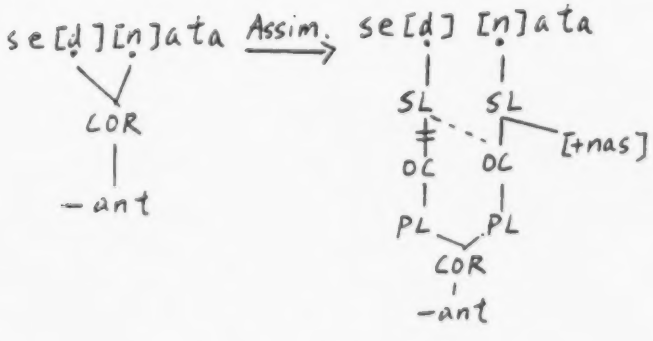
However, in order to derive the correct result we need a low level rule:

[+cont, +voice, -ant] → [+son]

The derivations of the phrase *ser nata* is shown in the following.

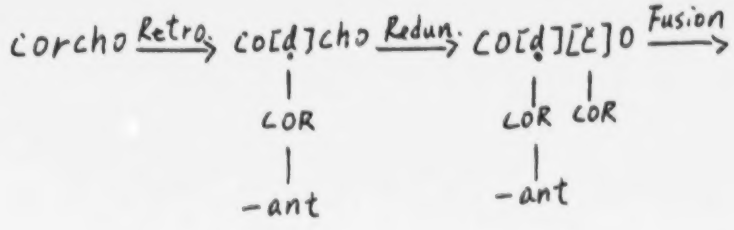
(18)

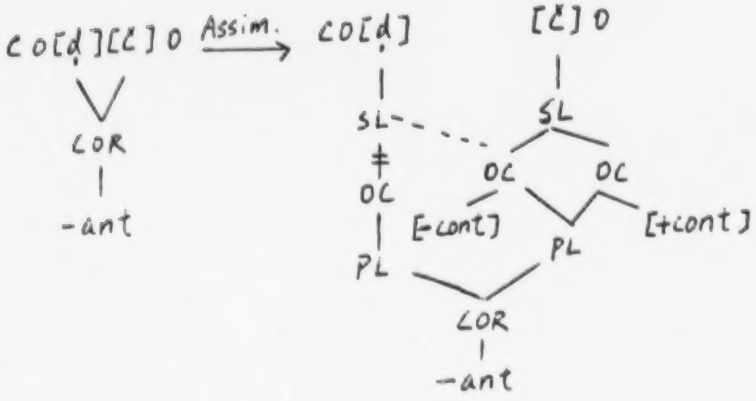




In this analysis we assume that [č] is a contour segment. It contains two Oral Cavity nodes. Each one carries one continuant feature. However, the regressive assimilation will only spread the closer (left) Oral Cavity node.

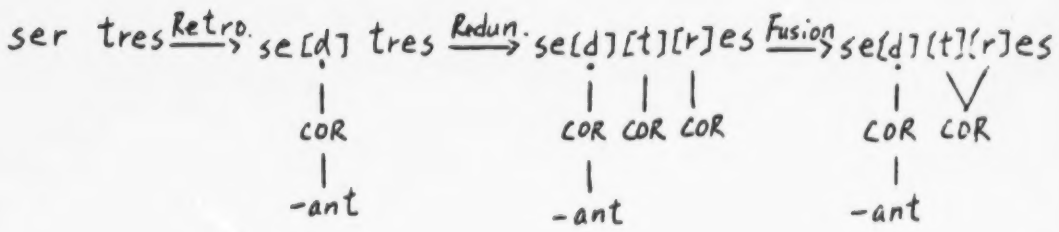
(19)



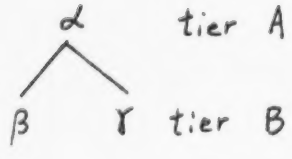


As shown in (1b) the retroflection does not occur when a consonant cluster follows the liquid. This is because that fusion takes syllable structure into account. Therefore the two segments in onset cluster for example /t/ and /r/ will fuse first resulting in a multiply linked structure as shown in (20). If we follow Schein & Steriade's claim (1986) that "if the structural description of some rule affecting α imposes conditions that are met by β but not by γ, then the rule will not apply to a multiply linked structure" like (21) and that linear precedence is defined between root nodes or between skeletal units and we restrict the fusion to take place under strict adjacency, the reason that the fusion does not take place in the above described situation is explained. The derivations of the phrase *ser tres* is shown in (22).

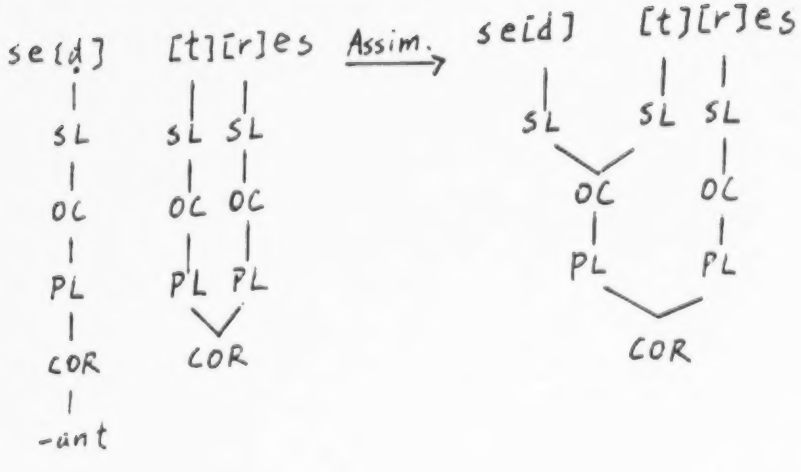
(20)



(21)



(22)



In this analysis we have seen that Supralaryngeal node is operative in the phonological process and place features and continuant feature form a natural group and by considering coronals as underspecified we achieve to explain their special behavior.

REFERENCES

Archangeli, D., & D. Pulleyblank. (forthcoming). The content and structure of phonological representations. Cambridge: MIT Press.

Avery, Peter, & Keren Rice. 1988. Underspecification theory and the Coronal node. Toronto Working Papers in Linguistics 101–121.

Avery, Peter, & Keren Rice. 1989. Segment structure and Coronal underspecification. Phonology 6.179–200.

Clements G.N. 1985. The geometry of phonological features. Phonology Yearbook 2.225–52.

Clements G.N. 1987. Phonological feature representation and the description of intrusive stops. CLS 23:2.29–50.

Davis, Stuart. 1989. The location of the feature [continuant] in feature geometry. Lingua 78.1–22.

Fails, Willis Clark. 1984. An analysis of the consonantal phonemes of the educated norm of Havana. Ph.d. dissertation. The University of Texas at Austin.

Guitart, Jorge M. 1976. Markedness and a Cuban dialect of Spanish. Washington, D.C.: Georgetown University Press.

____, 1980. Aspectos del consonantismo habanero: reexamen descriptivo. Dialectología Hispanoamericana, ed. by Gary E. Scavnicky, 32–47. Washington, D.C.: Georgetown University Press.

Haden, E.F., & J.H. Matluck. 1973. El habla culta de la Habana: análisis fonológico preliminar. Anuario de Letras 11.5–33.

Harris, James W. 1969. Spanish phonology. Cambridge: MIT Press.

____, 1985. Autosegmental phonology and liquid assimilation in Havana spanish. Selected papers from the XIIIth linguistic symposium on Romance languages, ed. by L. King & C. Maley, 127–148. Amsterdam:

Benjamins.

Hualde, José Ignacio. 1989. Procesos consónanticos y estructuras geométricas en Español. Linguística, ano 1.7–44.

Iverson, Peter, & Keren Rice. 1989. Segment structure and Coronal underspecification. Phonology 6. 285–303.

Keating, P. 1987. Palatals as complex segments: X-ray evidence. UCLA working papers in phonetics 69.77–91.

Kiparsky, P. 1982. Some consequences of lexical phonology. Phonology 2.85–138.

Levin, J. 1988. A place for lateral in the feature geometry. ms. University of Texas, Austin.

Lipski, John M. 1989. Spanish Yeísmo and palatal resonants: towards a unified analysis. Probus 1:2.211–223.

McCarthy, J.1988. Feature geometry and dependency. Phonetica 43.84–108.

Paradis, Carole, & Jean-François Prunet. 1990. Asymmetry and visibility in consonant articulations. The special status of coronals: internal and external evidence ed. by Carole Paradis & Jean-François Prunet, San Diego:Academic Press.

Puel, M., J.L. Nespoulous, A. Bonafé, and A. Rascol. 1980. Etude neurolinguistique d'un cas d'ananthrie pure, Grammatica VII 1.239–291.

Rice, K., & P. Avery. 1989. On the relationship between sonorancy and voicing. Toronto working papers in linguistics 10.

Sagey, E. 1986. The representation of features and relations in non-linear phonology. Ph.D. dissertation, MIT.

Schein, Barry, & Donca Steriade. 1986. On geminates. Linguistic Inquiry 17:4.691–744.

Zamora Munne, Juan C., & Jorge M. Guitart. 1982. Dialectología Hispanoamericana. Salamanca: Almar.

THE SYNTAX-PHONOLOGY INTERFACE AS THE KEY TO METRICALITY: Evidence from Taiwanese Folk Songs

Yuchau E. Hsiao

Abstract: Based on evidence from the lyrics of Taiwanese folk songs, this paper shows how metricality is keyed to interrelations between syntax and phonology. The lyrics are shown to allow mismatches between beats and syllables, and the way that syllables and beats are aligned yields the lyric rhythm. A set of well-formedness principles (Rhythm Principles) is proposed to govern the process of beat alignment. These principles rely on two major syntactic factors: the categorial distinction between lexical and functor syllables and the hierarchy of immediate constituents. The Rhythm Principles also effectively filter out metrical patterns that would result in improper beat alignment.

A recent linguistics topic that has attracted enormous interest is the nature of the relationshipy between syntax and phonology. Kaisse (1985), Odden (1987), Chen (1987,1989,1990), Hsiao (1990c,d,1991c), and others have shown that many phonological processes in English and Chinese rely crucially on direct syntactic conditions. Other phenomena have been explained using models in which the phonology-syntax interface is mediated by prosodic structures of various sorts (cf. Selkirk 1984,1986; Nespor & Vogel 1986; Shih 1986; Hong 1987; Zec 1988; Inkelas 1989; Hayes 1989; Hsiao 1990a,d,1991a).

Poetry (particularly in Chinese and English) is one domain that has provided significant insights into the question of which phonological processes are sensitive to which syntactic factors (cf. Chen 1980,1984a,b,c; Wright 1983; Youmans 1983,1989; Hsiao 1984,1990a). In this study, I confront various issues concerning the interaction of phonology and syntax from a fresh perspective, based on an analysis of the lyrics of Taiwanese folk songs, a type of language which is not as rigidly structured as poetry, yet not as variable as ordinary speech.[1] The folk song lyrics, recited in every street and alley, are frequently used in everyday conversation. Such intermediate linguistic art is interesting in that it retains much of the neatness of poetry without sacrificing the natural vigor of popular spoken language. This paper is the first, to my knowledge, to apply this data to the interface between syntax and phonology.

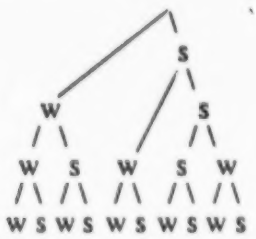
The following discussion is concerned with essentially five theoretical issues: 1) what kind of metrical/prosodic structure the lyrics have, 2) how grammatical factors affect alignment of syllables to beats, 3) to what extent syntactic constituents interact with metrical constituents, 4) what domain the principles governing the lyric rhythm are sensitive to, and 5) how alternative metrical patterns are selected in oral performances with different tempos.

Kansas Working Papers in Linguistics, 1991, Volume 16, pp. 77-98

Metrical Structure and Prosodic Constituent Structure

Broadly speaking, two major approaches to metrical structure have been pursued. On the one hand, Kiparsky (1977,1979) and Giegerich (1983,1984,1985), and those following their lead, propose that the metrical structure of English is fundamentally binary. The formal device used to capture this insight is the metrical tree, which consists of binary branching nodes labeled for relative prominence, i.e., strong (s) and weak (w), as illustrated by the following representation of iambic pentameter:

(1)



On the other hand, the metrical grid, introduced by Liberman & Prince (1977), and elaborated in various ways by Prince (1983), Hayes (1983, 1984), and Selkirk (1984), makes it possible to represent relative metrical prominence without trees. The representation of iambic pentameter in (1) can be reformulated as a grid, as in (2):

(2)

```
                x
              x x   x
      x   x x x x x
  x x x x x x x x x x
x x x x x x x x x x
_____________________________________
w s w s w s w s w s   relative prominence
```

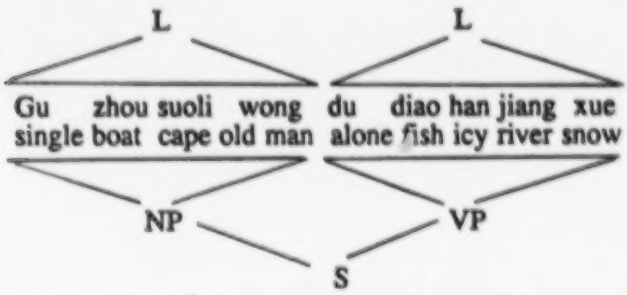
Chen (1979,1980,1984b) argues based on evidence from Chinese regulated verse that both hierarchical and binary metrical trees are needed to account for the various metrical patterns in this language. He proposes the metrical structure in (3), which yields the two kinds of regulated verse that exist in classical Chinese poetry: the five-syllable pattern if the parenthesized (f) is omitted, and the seven-syllable pattern otherwise.

(3)

```
      L          metrical line
     / \
    H   H        hemistich
   /\   /\
(f) f f  f       foot
```

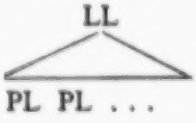
This structure can be viewed as a metrical prototype for Chinese regulated verse (cf. also Yip 1980; Xue 1989). This sort of metrical line frequently coincides with a syntactic constituent (a phrase, a clause, or a sentence). It is therefore often found that two or more metrical lines may form a larger syntactic constituent -- the S in (4), for example.

(4) 'An old man with a bamboo-leaved cape in a boat is fishing the snow in the icy river.'



A line of the Taiwanese folk song lyrics is frequently formed by the combination of such Ls, i.e., an individual line may contain a sequence of structures like (3). Generally speaking, these folk songs lyrics have the metrical properties of two major sources from which they derive, i.e., the classical regulated verse and irregular-length verse. A very interesting rhythmic tendency of the lyrics observed here is that **claps** usually fall on **foot-initial** beats, and that renders a kind of trochaic meter. The relative prominance of the syllables within a foot will therefore be indicated by beats specified with *s* (+ clap) and *w* (- clap). In order to capture the generalization concerning the prototypical rhythmic organization of such lyrics, I propose the following metrical structure, or more precisely, prosodic constituent structure (PCS).

(5)

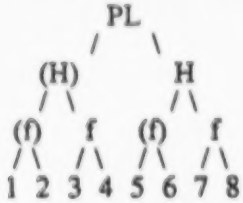


lyric line

prosodic line

A prosodic constituent structure, to use Selkirk's (1984) term, includes metrical trees like (3). A lyric line (LL) is formed from one or more prosodic lines (what Chen refers to as metrical lines). The metrical structure in (3) can now be re-labeled and modified for language-typological purposes, as shown by the PCS in (6).

(6)



prosodic line

hemistich

foot

prosodic template

---

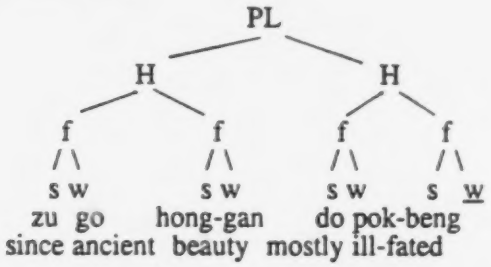
s w s w s w s w feminine metrical pattern
s w s w s w s w masculine metrical pattern

(6) shows that a prosodic line (PL) consists of one or two hemistiches (half-PLs). A hemistich (H) consists of one or two feet (f). Beats on the prosodic template (the numerals labeled with s/w) form trochaic feet. The parentheses in this PSC indicate the possible absence of constituents. Beats are generally aligned with syllables, in

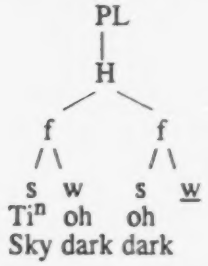
which case they can be thought of as **audible beats**. However, the beat in PL-final position may fail to be aligned with a syllable, i.e., may be a **silent beat** (w).

A PL must conform to one of two metrical patterns (MPs), i.e., it may contain an odd number of audible beats and end in a silent beat (the masculine MP), or it may contain an even number of audible beats and end in a weak audible beat (the feminine MP). In other words, the audible beat in PL-final position may either be strong (s) or weak (w). The following examples illustrate the various MPs that (6) sanctions.[2]

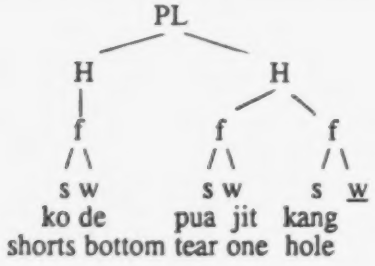
(7) 'Since the ancient time, beautiful girls are usually ill-fated.' (Taiwan Mingyao 1987: 89)



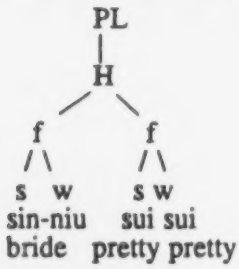
(8) 'The sky is dark.' (Taiwan Minyao 1987: 42)



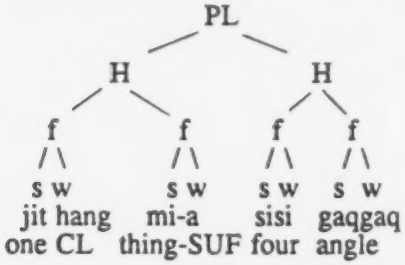
(9) 'In the bottom of the shorts a hole is torn.' (Taiwan Minyao 1987: 191)



(10) 'The bride is pretty.' (Taiwan Minyao 1987: 192)



(11) 'Something square.' (Taiwan Minyao 1987: 201)

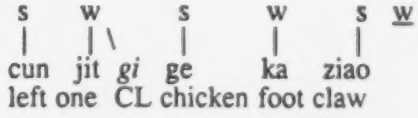


(7), (8) and (9) are instances of masculine MPs, and (10) and (11) of feminine MPs. These examples show that each PL may have as few as three audible beats, or as many as eight audible basic beats. Poetic convention dictates that the number of audible beats always matches the number of syllables. That is, every syllable is aligned with a single beat.

Lexical Syllables Versus Functor Syllables

In contrast to the classical regulated verse and irregular-length verse, Taiwanese folk song lyrics have the charming property of allowing a mismatch between the number of audible beats and the number of syllables in a PL. I will call a mismatch of this type a **syllable-beat mismatch**. To be specific, there may be fewer audible beats than syllables. In that event, the discrepancy between lexical syllables and functor syllables plays a crucial role in determining syllable-to-beat alignment. For example, given a PL with five audible beats but six syllables, an improper alignment of syllables to beats results in an unmetrical rhythm, as can be seen in (12) and (13).

(12) 'A chicken claw is left.' (Taiwan Minyao 1987: 182)



(13)* 'A chicken claw is left.'

```
s   w   s   w       s     w
|   |   |   |      / \
cun jit gi  ge     ka ziao
left one CL chicken foot claw
```

When a PL has a masculine MP, the PSC in (6) guarantees that this PL ends in a silent beat. Consequently, in PLs like (12) and (13) two syllables must share a beat. In this case, phonological facts alone are insufficient to determine which two, i.e., to obtain (12) and exclude (13). Syntactic information is crucial here. The key to understanding the contrast between (12) and (13) is the way in which beats are aligned with **functors**, i.e., words and morphemes with primarily grammatical import. Following general criteria for classifying elements as functors outlined in Bolinger (1975) and Crystal (1980) as well as specific criteria for Taiwanese (Cheng 1989b) and other Chinese dialects (Lu 1985, Pan 1989 and Hsiao 1990b,1991b), I assume that the class of functors in Taiwanese includes classifiers, prepositions, auxiliaries, complementizers, conjunctions, pronouns, and structure markers. Syllables which are not functors are called here **lexical syllables**. A tentative principle governing the alignment of functor syllables is as follows. Given two pairs of adjacent syllables, the pair including a functor more felicitously forms a beat; however, this is not to say that a functor may pair off with any adjacent syllable:

(13)* 'A chicken claw is left.'

```
s   w     s     w     s   w
|   |    / |    |     |
cun jit  gi ge    ka  ziao
left one CL chicken foot claw
```

Contrasting with (12), in which *gi* adjoins to the left-adjacent beat, in (14) it adjoins to the right-adjacent beat, yielding an unmetrical rhythm. It is clear then that the adjunction of a functor syllable can only go one way, i.e., to the left. The tacit assumption here is that functors are not originally aligned with a beat. Only lexical syllables are always aligned with a beat. When there is a syllable-beat mismatch, functor syllables are aligned or adjoined to beats according to certain principles. Consider, for instance, (7-11). The number of beats matches the number of syllables, i.e., there are five syllables for a five-audible-beat MP. As a result, every syllable -- regardless of its syntactic status -- is aligned with a single beat. The PLs in (13) and (14), on the other hand, pose a problem, as we have seen, since there is a syllable-beat mismatch. What we need is a set of well-formedness principles that predict the correct output both in cases like (7-11) and in cases like (12). The first three of the principles that I propose for syllable-to-beat alignment -- hereafter, called **Rhythm Principles** (RPs) -- are given in (15).

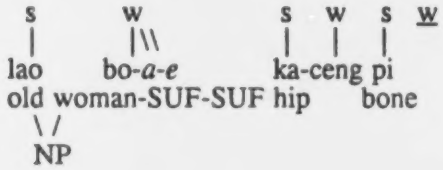
(15) One-to-One Alignment Principle (OAP): Every syllable is aligned with a beat, iff the number of audible beats matches the number of syllables.

(16) Lexical Syllable Principle (LSP): Only lexical syllables are aligned with a beat, if there is a syllable-beat mismatch.

(17) Stray Syllable Principle (SSP): A stray syllable is aligned or adjoined to a left-adjacent beat.

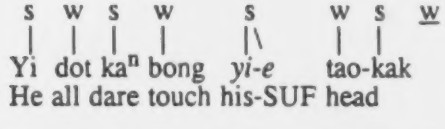
Given the LSP, "stray syllable" in the SSP usually means functor. In the lyrics, lexical syllables are more prominent than functor syllables, since only the former are truly crucial to conveying the meaning. These principles give lexical syllables priority in the beat aligned processes. The principles in (15-17) correctly allow for the possibility of a structure in which a beat is adjoined to by more than one stray syllable. For example, the two stray syllables in (18) share a beat with po, in conformance with the SSP.

(18) 'The old woman's hipbone.' (taiwan Mingyao 1987: 186)



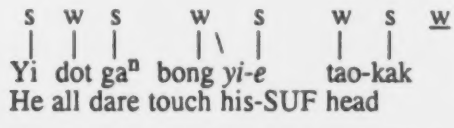
Both -a and -e are functor syllables and thus are subject to the SSP.[3] However, functor syllables may behave differently when they audible beats sanctioned by a certain MP outnumber the lexical syllables. (19), for example, is not predicted by the RPs in (15).

(19) 'He still dares to touch his head.' (Taiwan Mingyao 1987: 201)



The SSP does not require that yi and -e must share a beat. An unmetrical alignment like (20) cannot therefore be prevented.

(19) 'He still dares to touch his head.'



If -e is the one aligned with the beat, yi would undesirably share a beat with bong. What this shows is that a functor-suffix like -e is the last element to be aligned to a single beat. In order to account for the existence of structures like (19), a principle such as (21) is required.

(21) Functor Syllable Principle (FSP): Functor syllables which are not suffixes are aligned with a beat, iff the audible beats outnumber the lexical syllables.

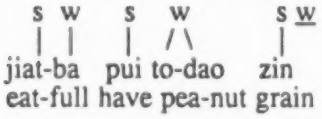
Given the FSP, the pronoun yi but not the suffix -e is aligned to the extra beat; -e then correctly adjoins to the left-adjacent beat (by the SSP).

One possible motivation for the FSP is that functor-suffixes in this language are semantically less contentful than other functors. The Taiwanese genitive -e, for example, carries as little semantic content as the English possessive 's. Cheng (1989b) defines functor-suffixes like -e as structure markers, and indicates that they always correspond to neutral tones (weak beats), while other types of functor syllables or suffixes surface with such tones only on more limited occasions.

The Interaction of Syntax and Phonology

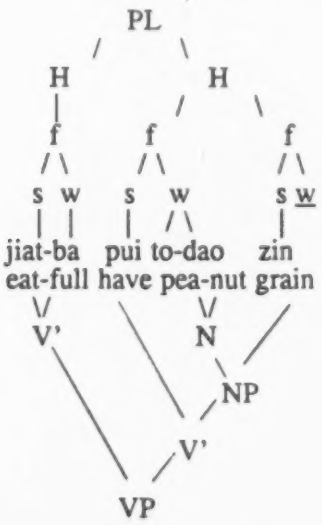
So far, we have focused on beat alignment in cases where the distinction between lexical syllables and functor syllables plays a role. A question still remains as to what happens when there is a syllable-beat mismatch and all the syllables are lexical syllables. In what follows, I will show that, in cases like this, the alignment process is directly influenced by syntactic constituency. Consider, for example, (22). The PL consists of five audible beats but six syllables, including no functor syllable.

(22) '(He) has peanuts after the meal.' (Taiwan Minyao 1987: 192)



The beat alignment in (22) is neither accounted for by the principles in (15) nor by that in (21), since there is no functor syllable involved. Yet there is a mismatch between syllables and audible beats. Based solely on phonological information, we have no way to tell which is a stray syllable if any. It is therefore necessary to look at the syntactic structure. Consider the prosodic and syntactic constituents of (22):

(23) '(He) has peanuts after the meal.'



The two syllables forming a beat in (23), *to* and *dao*, are immediate constituents (ICs) of the syntactic node N. Let us assume that rather than being aligned to a particular syllable, the beat in (23) is aligned to the syntactic constituent N. The following principle must therefore be added to those in (15) and (21).

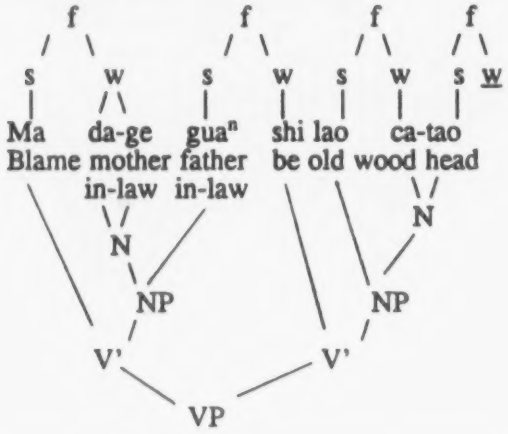
(24) Immediate Constituent Principle (ICP). Syntactic immediate constituents form a polysyllabic beat if a syllable-beat mismatch is thereby resolved.

(24) predicts that there might be alternative ways of resolving a syllable-beat mismatch in a line like (23), the two syllables *jiat* and *ba* are ICs of V', and thus should be able to form a disyllabic beat. This prediction is borne out, as shown by (25), an alternative -- though less frequently heard -- rhythm for (23).

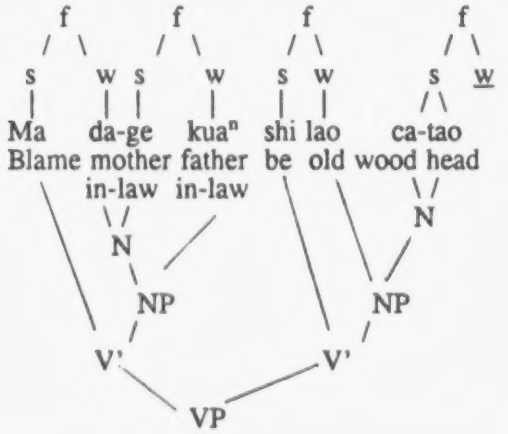
(25) '(He) has peanuts after the meal.'

It should be mentioned that the alignment of syntactic nodes with beats is required only when it is needed to resolve a syllable-beat mismatch. That is to say, in cases like (23) and (25), the five-audible-beat MP does not require both the first V' node and the first N node to be aligned with beats, nor does it allow the NP, the second V' or the VP to form a polysyllabic beat, since another syllable-beat mismatch would thereby be created. Consider now (26) and (27).

(26) 'Insult the in-laws and call them boneheads.'
(Taiwan Minyao 1987: 240)



(27)* 'Insult the in-laws and call them boneheads.'



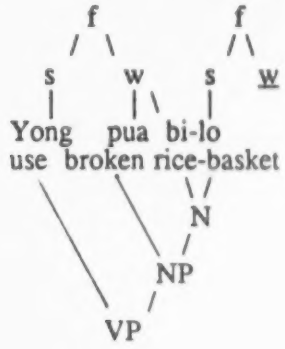
The fact that the ICs of the first N rather than those of the second N in (26) must share a beat cannot be explained by syntactic constituency alone. Other factors may play a role. The distinction between *da ge* and *ca tao* is that *tao* is aligned to the PL-final audible beat but *ge* is not. What this tells us is that the final audible beat in a PL cannot be divided. That is, it cannot be aligned with more than one syllable. In the case of (26), it must be aligned with *tao* only, and thus the first N but not the second N is aligned with a beat. The ICP then needs to be supplemented by the principle in (29).

(28) FAI (Final Audible-Beat Indivisibility): A ML-final audible beat is indivisible.

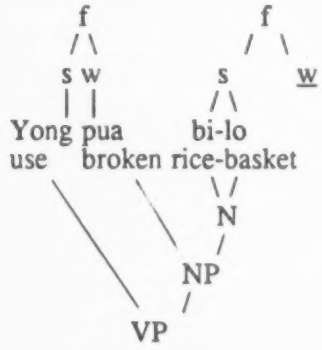
(29) FSA (Final Syllable Alignment): When the ICA conflicts with the FIB, only the final syllable in the relevant ML can be aligned with the ML-final beat.

(27) is prohibited by the FAI. The fact that a final audible beat is indivisible forces it to correspond only to the final (rightmost) syllable. In (26), the second N is subject to the ICP, which, however, is in conflict with the FAI. The FSA then dictates that only *tao* be aligned to the final audible beat. The penultimate syllable *ca* is aligned to a separate beat. As predicted by (28) and (29), the final audible beat remains indivisible even in cases where the penultimate syllable must share a beat with a left-adjacent syllable, as in the following examples.

(30) 'Use a broken rice basket.' (Taiwan Minyao, 1987: 187)



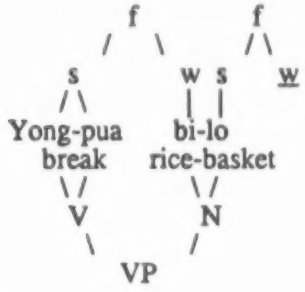
(31)* 'Use a broken rice basket.'



Since *bi* in (30) cannot be aligned to the final audible beat, it becomes a stray syllable and thus shares a beat with *pua*, in accordance with the SSP (Stray Syllable Principle).

Based purely on metrical considerations, one might conclude from (32) that examples like (30) can have an alternative metrical alignment. However, if we consider the syntactic difference between (30) and (32), we find that not only would this conclusion be erroneous, but that the validity of the ICP, the FAI and the FSA is further supported by such examples.

(32) 'Breaks a rice basket.'

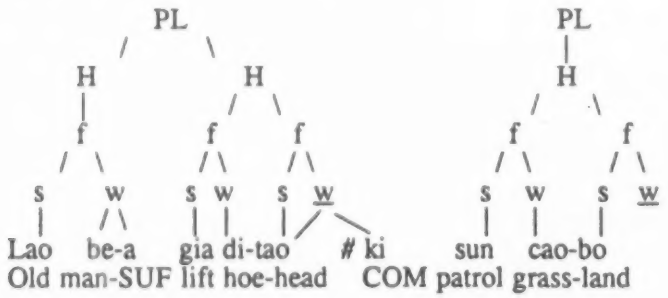


Unlike in (30), *pua* in (32) is an element in a verbal compound. Therefore there are two pairs of ICs forming disyllabic beats in (32): V and N. Both are subject to the ICP, but the FAI and the FSA insure that *bi* and *lo* are not aligned with the same beat. *Yong* and *pua* then share a beat by the ICP. The contrast between (30) and (32) shows again that different syntactic structures may correlate with different metrical patterns.

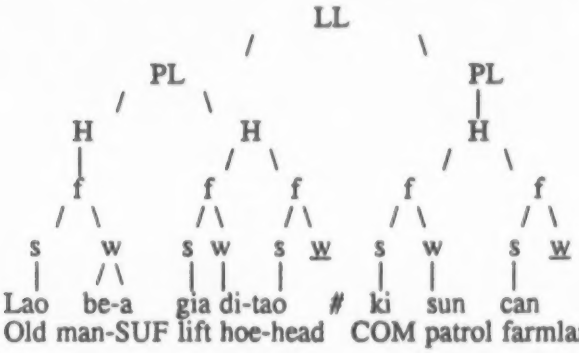
The Domain for the Rhythm Principles

The application of the RPs (Rhythm Principles) depends on whether there is a syllable-beat mismatch in a certain prosodic domain, which so far has been a PL. The question that arises then is how the RPs apply when there are two or more adjacent PLs involved. Could those principles be sensitive to the domain of LL? The contrast between (33) and (34) shows that the answer is negative.

(33) 'The old man carries a hoe to patrol the meadow.'
(Taiwan Minyao 1987: 183)

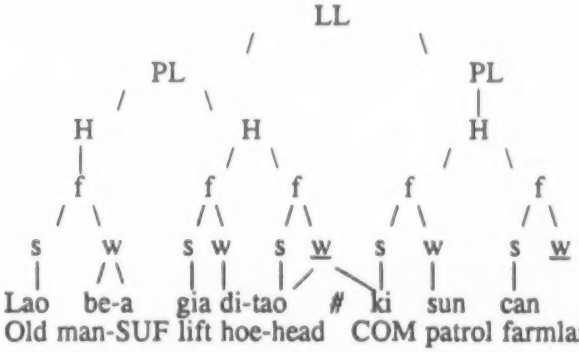


(34) 'The old man carries a hoe to patrol the farmland.' (adjusted from 33)



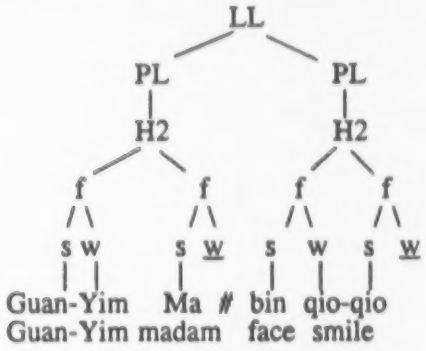
In (33), a PL with a five-audible-beat MP is followed by one with a three-audible-beat MP. The symbol "#" indicates the PL boundary. Both PLs are subject to the SSP, as the functor-suffix *-a* in the first PL joins with *be* to form a beat and ki in the second PL adjoins to the left-adjacent silent beat (w). Notice that *ki* only takes half of the silent beat, i.e., 0.5n msec in terms of relative time value. The other half of the silent beat (or *0.5n* msec) goes to the syllable-lengthening of *tao*. When *cao-bo* in (33) is replaced by *can*, as in (34), the functor syllable ki is no longer adjoined to the left-adjacent silent beat, because the second PL has no syllable-beat mismatch and thus is subject to the OAP (One-To-One Alignment Principle), which requires every syllable to be aligned with a beat. If the domain for the RPs is the LL, a syllable-beat mismatch would occur. There would be nine syllables but only eight audible beats in the whole LL, in which case the unmetrical (35) would be sanctioned.

(35)* 'The old man carries a hoe to patrol the farmland.'

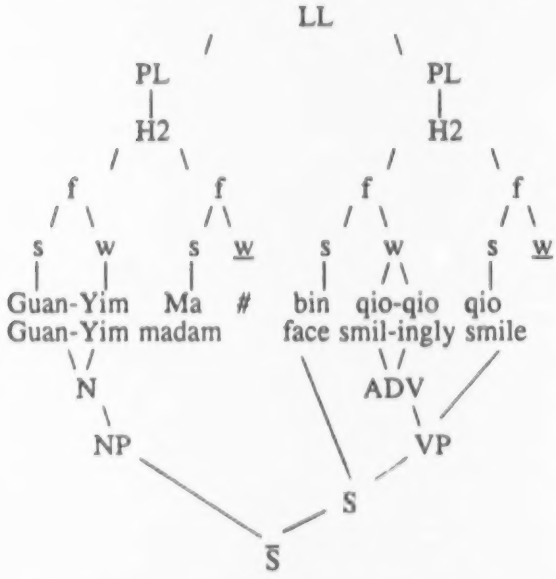


The undesirable beat alignment in (35) would not occur if the syllable-beat symmetry were recognized in the PL. Another example that supports the claim that the RPs are not sensitive to the LL domain is shown in (37), which is identical to (36) except that a third *qio* is added.

(36) 'Bodhisattva Guan-Yim smiles.' (Taiwan Minyao 1987: 190)

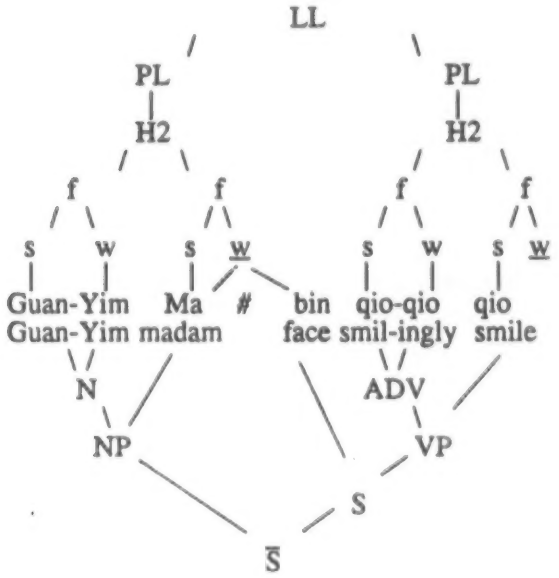


(37) 'Bodhisattva Guan-Yim smilingly smiles.' (adjusted from 36)



In (37), the ADV node is aligned with a single beat, since the fact that its two syllables are ICs makes it subject to the ICP (Immediate Constituent Principle). If this principle applies to the LL domain, we might expect that not only the ADV but the N (*Guan-Yim*) would be aligned with a beat, since the syllable-beat symmetry in the first PL does not exist at the LL level. Conversely, if the ICP would not be invoked, no alignment of syntactic nodes would occur. The situation would be "all or nothing." Either way, (37) would not be derived. Consider now (38).

(37) 'Bodhisattva Guan-Yim smilingly smiles.'



Bin in (38) is left-adjoined to the silent beat as *ki* is in (33). The catch, however, is that *bin* is a lexical syllable. Recall that bi in (30), also a lexical syllable, is adjoined to the left-adjacent beat due to the fact that the IP (Indivisibility Principle) makes it a stray syllable. *Bin* in (38), in contrast, is not subject to either of the principles, i.e., it is not a stray syllable but adjoins to the left-adjacent silent beat. Therefore, a further principle is needed to account for this phenomenon.

(39) Silent Beat Principle (SBP): A syllable is adjoined to a left-adjacent silent beat, iff the ICP does not apply as expected or fails to resolve a syllable-beat mismatch.

This principle insures that a syllable may only be adjoined to a left-adjacent silent beat that is functionally aligned, i.e., the case in which we get syllable-lengthening. The syllable, thus, can only partly adjoin to the silent beat and cannot be aligned to the whole beat. If a silent beat is not functionally aligned, it would necessarily be a pause, i.e., a beat that is not aligned in any way (cf. Selkirk 1984). If a syllable were adjoined to a silent beat of this kind, it would be aligned with the whole beat (i.e., it would take *n* msec rather than *0.5n* msec) -- an unmetrical result. In short, when the SBP applies, there is no pause. Notice that if the application of the ICP ends up resolving a syllable-beat mismatch, the SBP is no longer needed, as shown in (37). Conversely, (38) exemplifies an equally acceptable alternative when the SBP instead of the ICP is invoked in structures like (37). It should be noted that in cases like this, the ICP can be spared only if the SBP can sanction an acceptable alternative.

Selection of Metrical Patterns

The Rhythm Principles (RPs) constrain syllable-to-beat alignment based on a selected metrical pattern (MP) which is taken as a given. That is to say, the number

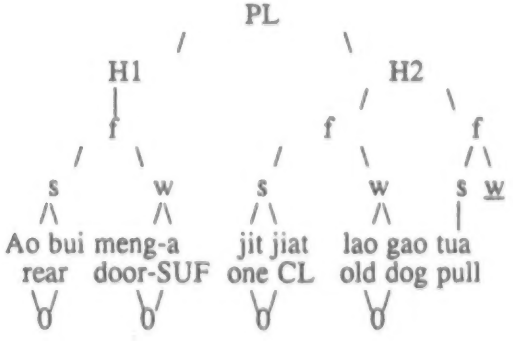
of beats in a PL are pre-determined before those principles apply. What has not been mentioned is how the native speaker knows that a certain number of beats go with a certain PL, i.e., how a particular MP is selected. In the lyrics of Taiwanese folk songs, this sort of selection is quite robust and context-free. A very simple criterion for MP selection is that the audible beats cannot outnumber the syllables.

Since the RPs condition the well-formedness of the lyrics, a selected MP must also conform to those principles in terms of beat alignment. For example, a pentasyllabic PL may select a masculine MP with five audible beats, in accordance with the OAP (One-To-One Alignment Principle). However, other principles may allow it to select a MP with fewer audible beats, as in (40).

(40) 'In the bottom of the shorts a hole is torn.' (Taiwan Minyao 1987: 191)

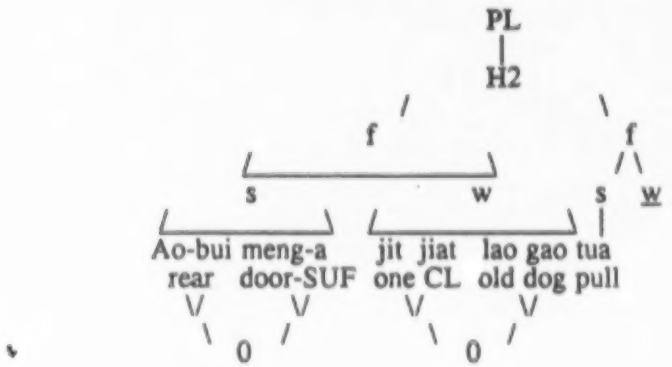
The MP in (40) has only three audible beats, and it is selected because the beat alignment can be accounted for by the RPs. The ICP (Immediate Constituent Principle) aligns the first but not the second circled syntactic node to a beat, for the first part of the IP (Indivisibility Principle) prohibits the final audible beat from being divided. To resolve this conflict, the second part of the IP dictates that only *kang* is aligned to the final audible beat. *Jit* is then adjoined to the left-adjacent beat by the SSP (Stray Syllable Principle). It is important to note that if not for the final audible beat, the prosodic constituents (beats) would match the syntactic constituents (the circled nodes) perfectly. (41) demonstrates a clear case of such a match.

(41) 'At the rear door, an old dog is pulling (it).' (Taiwan Minyao 1987: 185)



The four circled nodes in (41) match the first four beats so that the nine-syllable PL can select a five-audible-beat MP, conforming to the ICP.[4] In effect, this principle also predicts further matches of beats with higher syntactic nodes, as in (42).

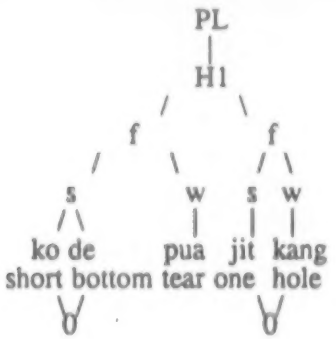
(42) 'At the rear door, an old dog is pulling (it).'



The two circled nodes in (42) are formed from those in (41). As predicted by the ICP, both circled nodes in (42) are aligned with beats. This allows for the nine-syllable PL to select even a three-audible-beat MP. It is clear then that alternative MPs can be selected for the same PL, provided that they comply with the Rhythm Principles. The choice of MP in such cases is influenced by the tempo used. (41) is appropriate for a relatively fast tempo; (42) for an even faster one. The same LL would select a nine-audible-beat MP in a regular tempo.

A final remark concerning MP selection is that masculine MPs are usually preferred over feminine ones. This may explain why (40) is much more often heard than (43).

(43) 'In the bottom of the shorts a hole is torn.'



The principles for metrical pattern selection may now be listed as follows:

(44) The audible beat cannot outnumber the syllables.

(45) A MP cannot be selected if it would result in beat alignments violating the RPs.

(46) When all requirements are met, a masculine MP is preferred over a feminine MP.

Concluding Remarks

To sum up, there are two facets to the lyric rhythm of Taiwanese folk songs, i.e., beat alignment and MP (metrical pattern) selection. Due to the fact that the folk song lyrics are metrically derived from classical Chinese verse, a PL (prosodic line) may display a syllable-beat symmetry. A common phenomenon in the folk song lyrics, however, is the existence of syllable-beat mismatches. Lexical syllables have priority over functor syllables when it comes to beat alignment in such mismatches. In all likelihood, this tendency appears to be language universal. For example, analyzing the linguistic rhythm in English, Liberman & Prince (1977) and Hayes (1983) also indicate that lexical syllables are always grid-marked.

Functor syllables, on the other hand, tend to be left-adjoined to the relatively weak positions in the trochaic meter. There is some cross-linguistic evidence for this kind of intuitively clear distinction between lexical and functor syllables. Pan (1989) shows that in the Wunzhou dialect of Chinese, the closed class of words (functor syllables) tends to surface with neutral tones, which in Chinese dialects correspond to weak beats. Hung (1987) comes to the same conclusion in his treatment of the Mandarin functor-suffixes. Our findings in Taiwanese reinforce the assumption that the prominence of lexical syllables over functor syllables is pan-dialectal in Chinese.

In the lyrics of Taiwanese folk songs, beat alignment and MP selection, in fact, can be thought of as a result of matching phonological and syntactic constituents, e.g., the beats with the circled nodes in (38), the PLs/MPs with the NP and the VP in (35-40) and the like. The domain of PL always coincides with a syntactic constituent, within which the RPs operate. In addition to the grammatical distinction between lexical and functor syllables, the RPs are also sensitive to syntactic immediate constituency, suggesting that direct interaction exists between the phonological and syntactic constituents, as the ICs may form polysyllabic beats in the lyrics. Similar evidence from Mandarin verse is presented by Chen (1984b,c) and Shih (1986.1990), where immediate constituency plays an analogous role in foot formation.

It is worthwhile to note that whereas the Taiwanese Rhythm Principles are sensitive to IC hierarchy, the tone sandhi rules in this dialect completely ignore it. Instead, they apply to tone groups formed by maximal projections (cf. Chen 1987,1989; Hsiao 1990a,1991a). Shih (1986) also argues that Mandarin tone sandhi applies cyclically only on prosodic constituents (prosodic foot, et cetera), implying that it is oblivious to syntactic ICs. Given that tone sandhi and metrical rhythm behave differently in both Taiwanese, a southern dialect, and Mandarin, a northern dialect, it would not be surprising to find that this sort of divergence is widespread among Chinese dialects.

NOTES

*This paper is a revised version of a paper presented at the 16th annual Minnesota Conference on Language and Linguistics. This research is sponsored in part by the UCSD Research Grant, and the DSS Research Enrichment Grant. I would like to thank Matthew Chen, Barbara Levergood, Edward Klima, Tracy Mansfiel, Sanford Schane and Patrick Farrell for useful discussion and/or comments on an earlier draft and all those who assisted me in this project.

1. Taiwanese is a Chinese Southern Min dialect spoken in Taiwan and on neighboring islands. When this dialect is spoken elsewhere, it is called by various names, e.g., Amoy, Hokkian, Xiamen and so on. In spite of slight differences, those regional variants are close enough to be considered a single dialect. (For introduction of this Chinese dialect, cf. R. Cheng & S. Cheng 1982; J. Huang 1985; R. Cheng & S Huang, eds; Cheng 1989a,b; J. Hsu 1989).

2. The suffix *-a* is an emphatic marker and the suffix *-e* is a genitive marker.

3. *Meng-a* and *jit jiat* can also be accounted for by the SSP (Stray Syllable Principle); *-a* is a functor syllable suffix and *jiat* is a classifier.

REFERENCES

Bolinger, D. 1975. Aspect of Language. 2nd ed. Chicago: Harcourt Brace Jovanovich.

Chen, M. 1979. "Metrical Structure: Evidence from Chinese Poetry." Linguistic Inquiry. 10: 371-420.

Chen, M. 1980. "The Primacy of Rhythm in Verse: a Linguistic Perspective." Journal of Chinese Linguistics. 8: 15-41.

Chen, M. 1984a."Abstract Symetry in Chinese Verse." Linguistic Inguiry. 15: 167-170.

Chen, M. 1984b. "Unfolding Latent Principles of Literary Taste: Poetry as a Window onto Language." Tsing Hua Journal of Chinese Studies. 16: 203-240.

Chen, M. 1984c. "The Interfacing of Language and Music." Language and Communication. 3: 159-194.

Chen, M. 1987. "The Syntax of Xiamen Tone Sandhi." Phonology Yearbook. 4: 109-150.

Chen, M. 1989. "What doesn't Phonology Need to Know about Syntax?" UCSD. Manuscript.

Chen, M. 1990. "What must Phonology Know about Syntax?" The Phonology-Syntax Connection. Inkelas, S. and D. Zec, eds. Chicago: the University of Chicago Press.

Cheng, R. 1989a. Essays on Written Taiwanese. Taipei: Crank Press.

Cheng, R. 1989b. Mandarin Function Words and Their Taiwanese Equivalents. Taipei: Crank Press.

Cheng, R. and S. Cheng. 1982. Phonology Structure and Romanization of Taiwanese Hokkian. 3rd ed. Taipei: Student Book Co., Ltd.

Cheng, R. and S. Huang, eds. 1988. The Structure of Taiwanese: A Modern Synthesis. Taipei: Crank Press.

Chien, S. 1987. Taiwan Minyao [Taiwanese Folk Songs]. 2nd ed. Taipei: Chung Wen Press.

Crystal, D. 1980. A First Dictionary of Linguistics and Phonetics. 2nd ed. New York: New York Press.

Giegerich, H. 1983. "On English Sentence Stress and the Nature of Metrical Structure." Journal of Linguistics. 19: 1-28.

Giegerich, H. 1984. Relating to Metrical Structure. Bloomington: Indiana University Linguistics Club.

Giegerich, H. 1985. Metrical Phonology and Phonological Structure: German and English. Cambridge: Cambridge University Press.

Hayes, B. 1983. "A Grid-Based Theory of English Meter." Linguistic Inquiry. 14: 357-393.

Hayes, B. 1984. "The Phonology of Rhythm in English." Linguistic Inquiry. 15: 33-74.

Hayes, B. 1989. "The Prosodic Hierachy in Meter." Phonetics and Phonology. 1: 201-260.

Hsiao, Y. 1984. Linguistics Analysis of Chinese and English Poetry. Taiwan Tunghai University. BA Thesis.

Hsiao, Y. 1990a. "The Bermuda Triangle of Syntax, Rhythm and Tone." To appear in ESCOL. 7.

Hsiao, Y. 1990b. "The Polysemous Perfect Aspect in Mandarin." To appear in MALC. 25.

Hsiao, Y. 1990c. "A Prosodic-Syntactic Approach to Metricality: Evidence from the Rhythm of Taiwanese Folk Songs." Paper presented at the 16th Annual Minnesota Conference on Language and Linguistics.

Hsiao, Y. 1990d. "When Syntax Meets Rhythm: Evidence from Folk Songs across Chinese Dialects." To appear in WECOL. 20.

Hsiao, Y. 1991a. "The Fall of the Berlin Wall between Phonology and Syntax." Paper presented at the Workshop on Theoretical East Asian Linguistics.

Hsiao, Y. 1991b. "A Cognitive Grammar Approach to Perfect Aspect: Evidence from Chinese." To appear in BLS. 17.

Hsiao, Y. 1991c. "The Invisibility of Prosodic Hierarchy: A Taste of Taiwanese." Paper presented at the 3rd North American Conference on Chinese Linguistics.

Hsiao, Y. 1991d. "A Metrical-Syntactic Analysis of Taiwanese Nursery Rhymes." Paper distributed at the Conference of Chinese Culture and the World. Shanghai International Studies University.

Hsiao, Y. 1991e. "Uncovering the Mystery of Function Words in Rhythm." To appear in Michigan Working Papers in Linguistics.

Hsu, C. 1982. Taiwan Fulaohsi Minge [Folk Songs of Taiwan Fulao]. Taipei: Bai Ke Cultures Co. Ltd.

Hsu, J. 1989. Taiwan Hua Liulang Ji [The Adventure of Taiwanese]. Taipei: Taiwan Language Research Center.

Huang, J. 1985. Minnan Hua Kaozheng [Textual Research of the Southern Min Dialect]. Taipei: Wenshizhe Press.

Hung, T. 1987. Syntactic and Semantic Aspects of Chinese Tone Sandhi. UCSD. Ph.D. Dissertation.

Inkelas, S. 1989. Prosodic Constituency in the Lexicon. Stanford University. Ph.D. Dissertation.

Kaisse, E. 1985. Connected Speech: the Interaction between Syntax and Phonology. Academic Press.

Kiparsky, P. 1977. "The Rhythmic Structue of English Verse." Linguistic Inquiry. 8: 189-247.

Liberman, M. and A. Prince. 1977. "On Stress and Linguistic Rhythm." Linguistic Inquiry. 8: 249-336.

Lu, J. 1985. Xiandai Hanyu Xuci Sanlun [Analysis of the Function Words in Modern Chinese]. Pekking: Pekking University Press.

Nespor, M. 1990. "On the separation of Prosodic and Rhythmic Phonology." The Phonology-Syntax Connection. Inkelas, S. and D. Zec, eds. Chicago: the University of Chicago Press.

Nespor, M., and I. Vogel. 1986. Prosodic Phonology. Dordrecht: Foris.

Odden, D. 1987. "Kimatuumbi Phrase Phonology." Phonology Yearbook. 4: 13-36.

Pan, W. 1989. "Wunzhou Fangyan de Fongbi Leici [The Closed Class of Words in the Wunzhou Dialect]." Wunzhou University. ms.

Prince, A. 1989. "Metrical Forms." Phonetics and Phonology. 1: 45-80.

Selkirk, E. 1984. Phonology and Syntax: the Relation between Sound and Structure. MIT Press.

Selkirk, E. 1986. "On Derived Domain in Sentence Phonology." Phonology Yearbook. 3: 371-405.

Shih, C. 1986. The Prosodic Domain of Tone Sandhi in Chinese. UCSD. Ph.D. Dissertation.

Shih, C. 1990. "Mandarin Third Tone Sandhi and Prosodic Structure." Studies in Chinese Phonology. Wang, J. and N. Smith, eds. Cornell University and Rutgers University.

Waterson, N. 1987. Prosodic Phonology: The Theory and its Application to Language Acquisition and Speech Processing. Great Britain: Jasprint Ltd.

Wright, M. 1983. A Metrical Approach to Tone Sandhi in Chinese Dialects.University of Massachusetts, Amherst. Ph.D. Dissertation.

Xue, P. 1989. "Prosodic Constituents and the Tonal structure of Chinese Regulated Verse." Linguistic Inguiry. 20: 688-696.

Yip, M. 1980. The Tonal Phonology of Chinese. MIT. Ph.D. Dissertation.

Youmans, G. 1983. "Generative Test for Generative Meter." Language. 59: 67-92.

Youmans, G. 1989. "Milton's Meter." Phonetics and Phonology. 1: 341-380.

Zec, D. 1988. Sonority Constraints on Prosodic Structure. Stanford University. Ph.D. Dissertation.

CAUSATIVE CONSTRUCTIONS IN NEPALI[1]

Kaoru Horie

Abstract: This paper discusses the syntax and semantics of causative constructions in Nepali. The results of this study lend support to the hypothesis of syntactic iconicity between the degree of structural integration of the causative constructions on the one hand, and the degree of conceptual encapsulation of cause and effect relation encoded on the other.

Table of Contents

0. Introduction
1. Causative morpheme "au"
2. Periphrastic causative constructions in Nepali
3. Conclusion

0. Introduction

Causative constructions, alongside of verb serialization, have been observed to exhibit the iconic relationship between form and meaning.[2] Haiman (1983: 783) has made the following generalization on the syntactic iconicity encoded by causative constructions:

> If two causative constructions contrast within a given language, ... and they contrast semantically with respect to the conceptual distance between cause and result, then the conceptual distance between cause and result will correspond to the formal distance between cause and result.

What this principle amounts to is the following: if a given language has two or more causative constructions which contrast in terms of the degree of structural integration of cause and result clauses (e.g. analytic - agglutinative - synthetic causatives), then the causative constructions which exhibit greater structural fusion (e.g. synthetic causative) tend to encode more direct, non-mediated causation than those with lesser structural integration (e.g. analytic causative).

This generalization correctly captures the close iconic relationship between the degree of structural (formal) integration of causative constructions on the one hand, and the degree of conceptual (semantic) closeness of cause and result relation encoded on the other.

Kansas Working Papers in Linguistics, 1991, Volume 16, pp. 99-110

This paper analyzes the syntax and semantics of causative constructions in Nepali. The results of this study, though preliminary, lend support to the synthetic iconicity of causative constructions observed in other languages.[3]

1. Causative Morpheme "au"

In Nepali, the citation form of a verb ends in "nu", e.g. "gar-nu" (to do), "lekh-nu" (to write), "sun-nu" (to hear, listen to). By inserting the morpheme "au" before "nu", we can change the verbs into corresponding causative verbs, as shown below:

(1) John-le[4] tyo kitab dekh-yõ[5]
Agt that book see-3rd/Past[6]
'John saw the book'

(1') Mai-le John-lai[7] tyo kitab dekh-a-yẽ[8]
I Agt Pat see-Caus-1st/Sg/Past
'I showed John the book'

(2) John-le tyo katha sun-yõ
Agt story hear-3rd/Past
'John heard the story'

(2') Mai-le John-lai tyo katha sun-a-ye[9]
Pat hear-Caus-1st/Sg/Past
'I told John the story'

(3) John-le engregi sik-yõ
English learn-3rd/Sg/Past
'John learned English'

(3') Mai-le John-lai engregi sik-a-yẽ
learn-Caus-1st/Sg/Past
'I taught John English'

(4) John-le tarkarie kha-yo
curry eat-3rd/Sg/Past
'John ate curry'

(4') Mai-le John-lai tarkarie khuwa-yẽ[10]
eat-Caus-1st/Sg/Past
'I fed John curry'

(5) John-le patha gar-yo
homework do-3rd/Sg/Past
'John did the homework'

(5') Mai-le John-lai patha gar-a-yẽ
do-Caus-1st/Sg/Past
'I made John do the homework'

(6) Rukh dhal-yo
tree fall-3rd/Sg/Past
'The tree fell'

(6') Hawa-le rukh dhal-a-yo
wind fall-Caus-3rd/Sg/Past
'The wind felled the tree'

As can be observed from the above examples, this morphological process of causativization usually encodes non-mediated, 'direct' causation in which the causer directly acts on the causee. Hence, this form of causativization strongly implies the realization of caused events, as the contradiction of the following sentence illustrates:

(7) Mai-le John-lai tarkarie { (a) *khuwa-yeko thien[11]
eat-Past P be-1st/Sg/Past
(b) **khuwa-ye[12]
eat-1st/Sg/Past }

tara us-le kha-yena
but he eat-3rd/Neg/Past

(a) '*I had fed John curry, but he didn't eat'
(b) '*I fed John curry, but he didn't eat'

Although this causativization process derives a number of transitive verbs from the corresponding intransitive, it is important to note that there are cases where the independently lexical causative verb exists alongside the derived causative verb with subtle semantic differences:

(8) John mar-yo
die-3rd/Sg/Past
'John died'

(8') Mai-le John-lai maar-yẽ
Agt Pat kill-1st/Sg/Past
'I killed John'

(8'') Mai-le John-lai mar-au-yẽ
die-Caus-1st/Sg/Past
'I got John killed'

Here, the verb "maar-nu" in (8') exists alongside the derived causative form "mar-au-nu" in (8''). Although the "au" causative usually encodes non-mediated direct causation, as discussed with respect to the examples (1) - (6), (8'') here can only mean

indirect causation which implies no direct physical contact.[13]

This semantic difference between (8') and (8'') can be accounted for as follows. When the verb has no corresponding lexical (synthetic) causative, as in (1) through (6), the corresponding morphological (agglutinative) causative encodes the non-mediated direct causation. However, when the verb allows for both lexical causative (e.g. (8')) and morphological causative (e.g. (8'')), the lexical causative encodes direct causation in contrast to the morphological causative. Therefore, in this case, the morphological causative form "mar-au-yen", which would usually encode non-mediated direct causation, is semantically demoted to indirect causation in the presence of the lexical causative form "maar-yen".

This contrast between lexical (synthetic) causative and morphological (agglutinative) causative fits in with Haiman's observation whereby it is claimed that 'greater fusion or reduction of the causative morpheme signals directness of causation.' (Haiman 1983: 786) Bernard Comrie makes the same point when he says 'the [construction] closer to the lexical end is more appropriate for the direct causative.' (Comrie 1989: 173)

2. Periphrastic Causative Constructions in Nepali

Nepali has several causative verbs which form periphrastic causative constructions. These verbs including "banau-nu" (make), "garau-nu" (make, do), "lagau-nu" (apply, assign), and "di-nu" (give), encode different shades of causation which range from coercion through permission to arrangement.[14]

In comparison to the morphological causativization with an "au" which we have seen in the previous section, the periphrastic causative constructions seem to encode situations where the human causee retains control over his/her action, even if the causer originally induces that action by force or by words.

In what follows, I will take a closer look at the different types of periphrastic causative constructions in respect to the two semantic parameters: (I) modes (manner) of causation, and (II) implication of realization of the caused event.

The causative construction with "banau-nu" (make) co-occurs with the present participle form of the verb, which is composed of the root and the present participle suffix "-ney" (e.g. au-ney 'coming'). This causative construction encodes the enabling of the intended action prior to the realization of an intended action, as the following sentences illustrate:

(9) Mai-le John-lai tarkarie kha-ney bana-yẽ
I Agt Pat curry eat-Present P make-1st/Sg/Past
'I convinced John to eat curry' or
'I made John willing to eat curry'

(10) Us-le ma-lai mantri hu-ney bana-yo
he minister be-Present P make-3rd/Sg/Past
'He arranged for me to become a minister' or
'He made me capable of becoming a minister'

(11) Us-le pani par-ney bana-yo
he rain fall-Present P make-3rd/Sg/Past
'He made arrangements for it to rain'

The periphrastic causative construction with "garau-nu" (make) is syntactically and semantically similar to the one with "banau-nu". Like "banau-nu", the causative verb "garau-nu" co-occurs with the present participle form of the verb (e.g. ja-ney 'going'). Semantically, again like "banau-nu", the causative construction with "garau-nu" encodes modes of causation ranging from convincing to arrangement:

(12) Mai-le John-lai bahira ja-ney gara-ye
outside go-Present P make-1st/Sg/Past
'I convinced John to go outside'

(13) Gophal-le ma-lai bhat kha-ney gara-yo
rice eat-Present P make-3rd/Sg/Past
'Gophal convinced me to eat rice' or
'Gophal made me willing to eat rice'

The "banau-nu" and "garau-nu" causative constructions are semantically very close. However, as pointed out by my informant, the former seems to imply a slightly stronger form of causation than the latter, as shown below:

(14) Tiniharu-le tyo machine chal-ney gara-ye
they the machine work-Present P make-3rd/Pl/Past
'They made the machine work'

(14') Tiniharu-le tyo machine chal-ney ban-a-ye
they the machine work-Pres P make-3rd/Pl/Past
'They made the machine work'

The sentence (14) means 'they got the machine to work whenever necessary', while (14') means 'they repaired the machine which was out of order and got it to work'. This semantic difference between (14) and (14') seems to imply that the "banau-nu" causative encodes a slightly stronger form of arrangement exerted by the causer toward the causee than the "garau-nu" causative. However, it is

not clear at this stage how much validity this tentative semantic characterization has for other cases.[15]

The semantic characteristic of 'arrangement' common to both "garau-nu" and "banau-nu" causatives is highlighted when they are contrasted with the "au" morphological causative, as shown below:

(15) *?Hawa-le ghar dhal-ney {bana-yo / gara-yo}
wind house fall
*?'The wind arranged for the house to fall'

(15') Hawa-le ghar dhal-a-yo
fall-Caus-3rd/Sg/Past
'The wind felled the house'

(16) Tiniharu-le ghar dhal-ney {bana-yẽ / gara-ye}
they
'They arranged for the house to fall'

The sentence (15) is semantically odd because the semantic characteristic of 'arrangement' encoded by the "banau-nu" and "garau-nu" causatives is incompatible with the nonhuman causer "hawa" (wind).[16]

On the other hand, the "au" morphological causative, which normally encodes non-mediated direct causation, is semantically compatible with the nonhuman causer "hawa", as shown in (15'). In contrast with (15), the 'arrangement' sense of "banau-nu" and "garau-nu" causatives is compatible with the sentence (16), which for example describes the arrangements made in a film being shot on location.

The "banau-nu" causative and the "garau-nu" causative share another important semantic characteristic. That is to say, in contrast to the "au" morphological causative, they are neutral as to the realization of the caused events, as illustrated below:

(17) Mai-le John-lai tarkarie kha-ney {bana-yẽ / gara-ye}
I Agt Pat curry eat-Pres P
'I convinced John to eat curry'

(18) Mai-le John-lai bahira ja-ney {bana-yẽ / gara-ye}
outside go-Pres P
'I convinced John to go outside'

Neither sentence (17) nor (18) necessarily implies that the caused events ('John's eating curry' and 'John's going outside') actually happened.

In fact, the following sentence in which the realization of a caused event is negated is marginally acceptable, as shown below:

(17') *?Mai-le John-lai tarkarie kha-ney bana-yeko
make-Past P

thien tara us-le kha-yena
be-1st/Sg/Past but he eat-Neg/3rd/Sg/Past
'I had convinced John to eat curry but he didn't eat'

(17'') *Mai-le John-lai tarkarie kha-ney bana-yẽ
make-1st/Sg/Past

tara us-le kha-yena[17]
'I convinced John to eat curry but he didn't eat'

Considering the neutrality of (17) in respect of the realization of a caused event, the sentence (17') is expected to be well-formed. However, here the implication of 'realization' conveyed by the past perfect form seems to override the neutral implication of the "banau-nu" and "garau-nu" causatives, thereby rendering this sentence lower in acceptability than expected. However, this sentence is still higher in acceptability than the following comparable sentence (19), which involves the "au" morphological causative:

(19) (=7a) *Mai-le John-lai tarkarie khuwa-yeko
eat-Past P

thien tara us-le kha-yena
be-1st/Sg/Past but he eat-3rd/Neg/Past
'*I had fed John curry, but he didn't eat'

The third type of periphrastic construction in Nepali involves the causative verb "lagau-nu" (apply, assign). It co-occurs with the infinitive form of the verb which ends in "-na" (e.g. "garna" 'do'), as shown below:[18]

(20) Mai-le John-lai patha gar-na laga-ye
do-Inf make-1st/Sg/Past
'I made John do homework'

(21) Mai-le John-lai Mary-lai kut-na laga-ye
hit-Inf make-1st/Sg/Past
'I made John hit Mary'

(22) John-le Gophal-lai has-na laga-yo
laugh-Inf make-3rd/Sg/Past
'John made Gophal laugh'

The "lagau-nu" causative differs from both "banau-nu" and "garau-nu" causatives in its implication of the caused event: sentences (20) through (22) strongly imply that the caused events happened. Hence the ungrammaticality of the following sentences in which the realization of the caused event is negated:

(23) *Mai-le John-lai tarkarie kha-na laga-yeko
curry eat-Inf make-Past P

thiẽn tara us-le kha-yena
be-1st/Sg/Past but he eat-3rd/Neg/Past
'*I had made John eat curry but he didn't eat'

(23') **Mai-le John-lai tarkarie kha-na laga-ye
make-1st/Sg/Past

tara us-le kha-yena
'*I made John eat curry but he didn't eat'

Due to the polysemous nature of "lagau-nu", however, there are cases where these sentences are acceptable. That is to say, these sentences are acceptable in the directive sense of 'I (had) told John to eat curry but he didn't eat'.[19] In this interpretation, the verb "lagau-nu" doesn't function as a causative verb with the strong implication of the realization of a caused event. Rather, it functions as a directive verb which is even lower in the implication than "banau-nu" or "garau-nu".

So far, we have seen three types of periphrastic causative constructions with "banau-nu", "garau-nu", and "lagau-nu", all of which encode causation.

Another possible semantic type of causative is the "permissive", which is encoded in Nepali by the verb "di-nu" (give). Like the "lagau-nu" causative, the "di-nu" periphrastic causative co-occurs with the infinitive form of the verb, as shown below:

(24) Gophal-le ma-lai sut-na di-yo
sleep-Inf give-3rd/Past
'Gophal let me sleep'

(25) Mai-le John-lai dhokaa khol-na di-yẽ
door open-Inf give-1st/Past
'I allowed John to open the door'

(26) Tiniharu-le us-lai mantri hu-na di-e
they minister be-Inf give-3rd/Pl/Past
'They allowed him to become a minister'

Like the "banau-nu" and "garau-nu" causatives, the "di-nu" causative is normally neutral as to the realization of the event encoded by the infinitive verb. Therefore, sentences (24) through (26) are neutral as to whether the events 'my sleeping', 'John's opening the door' and 'his becoming a minister' happened or not. Moreover, unlike the "banau-nu" and "garau-nu" causatives, the "di-nu" causative does allow for the following sentences in which the event encoded by the complement verb is negated:[20]

(25') Mai-le John-lai dhokaa khol-na di-yeko
give-Past P

thien tara us-le khol-yena
be-1st/Sg/Past but he open-3rd/Neg/Past
'I had allowed John to open the door but he didn't open'

(25'') Mai-le John-lai dhokaa khol-na di-yẽ
give-1st/Sg/Past

tara us-le khol-yena
'I allowed John to open the door but he didn't open'

The difference between the "di-nu" causative and other three types of causatives can be accounted for by the semantic difference between "permission" and "true causation".[21] The permissive "di-nu", which only means 'not prevent event from happening', is weaker than other types of causatives in terms of implication of the realization of an event, hence the acceptability of sentences (25') and (25'').

3. Conclusion

On the basis of the observations of the above two sections, I propose the following implicational scale. It ranges six causative constructions in Nepali in terms of the implication of the realization of effect from the strongest one to the weakest one:

(27)

implication strongest						implication weakest
lexical causative (e.g. maar-nu)	>	morphological causative ("au")	>	periphrastic causative lagau -nu 'make' > banau -nu > garau -nu > lagau -nu 'tell' > di -nu		

In this paper, we have given an overview of the major causative constructions in Nepali. Although the results of our findings are very preliminary, Nepali has been observed to display the iconic relationship which holds between the structural integration of causative constructions on the one hand, and the conceptual encapsulation of cause and effect on the other.

NOTES

1 This study is based on a paper written under the direction of Prof. Bernard Comrie's course on Directed Reading at the University of Southern California (Fall 1989). The author would like to acknowledge his appreciation of the comments and criticism provided by the following individuals: Prof. Comrie, Stephen Matthews, Pramod Pokharel (native speaker-consultant), and anonymous reviewers of KWPL. Needless to say, none of these persons are held responsible for the potential errors and misunderstandings in this paper.

2 See Bruce (1988) for the discussion of verb serialization from the perspective of iconicity.

3 See Comrie (1989), pp. 165-84, for an overview of syntax/semantics of causative constructions.

4 "le" is a particle marking the agent of the transitive sentence in the past tense. In the present tense, the agent is not marked by "le", as shown below:

(i) Balbir kam gar-chha
work do-3rd/Sg/Mas/Present
'Balbir does the work'

5 The phonetic symbol "~" denotes nasalization of vowels.

6 The following abbreviations are used in the glosses: Agt=Agent, Pat=Patient, Caus=Causative, Neg=Negative, Past=Past Tense, Inf=Infinitive, Pres P=Present Participle, Past P=Past Participle, Sg=Singular, Pl=Plural, Mas=Masculine, 1st=1st person, 3rd=3rd person.

7 "Lai" is a particle marking the animate (prototypically human) NPs to which actions of subject NPs are addressed. This particle is provisionally coded as "Pat(ient)" in the glosses.

8 The causative morpheme, which is underlined, often surfaces as "a" under the influence of the following vowel.

9 This causative form "sun-au-nu (citation form)" (let hear, tell) though theoretically possible, doesn't seem to be used by the native speakers. The verb "bhannu" (tell) is usually used instead, as shown below:

(i) Mai-le John-lai tyo katha bhaney
story told
'I told John the story'

10 Here, since the insertion of the causative morpheme causes complex phonological change in the root "kha", it is difficult to single out a causative morpheme.

11 In Nepali, the past perfect form of the verb is composed of the verb root + past participle "-yeko" (e.g. gar-yeko 'done'), and past tense form of the verb "chha-nu" (be) (e.g. thien (I was), thiyo (s/he was) and etc.), as shown below:

(i) Mai-le patha gar-yeko thien
I Agt homework do-Past P be-1st/Sg/Past
'I had done the homework'

12 In Nepali, in comparison to English for example, it seems semantically more odd to use the past tense form of the verb in the first conjunct of this type.

13 The native speaker I have consulted said that the form "mar-au-ye" implies that 'I planned his death, but I was not on the scene when he died', e.g., that 'I had given him a time-bomb which went off later and killed him.'

14 "Banau-nu" and "garau-nu" are morphological causative forms of the corresponding intransitive verbs, "ban-nu" (be made) and "gar-nu" (do), respectively. On the other hand, "lagau-nu" is not related in the same way to the apparently similar "lag-nu" (carry away). For the sake of convenience, I have not singled out the causative suffix of "banau-nu" and "garau-nu" when they function as periphrastic causative verbs. I will translate the above three causative verbs into 'make' in the glosses.

15 An anonymous reviewer of KWPL suggested to me the possibility that the difference between (14) and (14') might be due to the causative verb "garau-nu" having a wider scope on the aspectual interpretation of the embedded clause than the verb "banau-nu".

16 Stephen Matthews suggests the possibility that the semantic characteristic 'arrangement' might be reduced to the more primitive concept of 'intention'. (Personal communication)

17 See Note 12 for the reason why (17'') is lower in acceptability than (17').

18 Besides causative verbs, the infinitives ending in "-na" are used with such verbs as "sak-nu" (can), "ant-nu" (be about to do), and "jannu" (know how to do).

19 Notice that even the sentence (23'), which is normally lower in acceptability than its past perfect counterpart (23), is acceptable in this interpretation, though less preferred.

20 Although both the sentences (25') and (25'') are acceptable, there is a clear preference for (25'), as has been the case in the preceding comparable examples.

21 For the difference between "permissives" and "true causatives", see Comrie (1989), p. 171.

REFERENCES

Bruce, Les. 1988. "Serialization: From Syntax to Lexicon." Studies in Language. 12.1, pp. 19-49.

Comrie, Bernard. 1989. Language Universals and Linguistic Typology. Oxford: Basil Blackwell. 2nd ed.

Haiman, John. 1983. "Iconic and Economic Motivation." Language. 59.4, pp. 786-819.

Hale, Austin, and David Waters. 1973. Clause, Sentence, and Discourse Pattern in Selected Languages of Nepal. Part II, Clause Structure. Dallas: Summer Institute of Linguistics.

Ishii, Hiroshi. 1986. Kiso Nepal Go. (Basic Nepali). Tokyo: Daigaku Shorin.

Meerendonk, M. 1981. Basic Gurkhali Grammar. Singapore: Sen Wah Press Co., 1971.

Toba, Noriyoshi. 1980. Nepal Go Kiso 1500 Go. (Basic Nepali 1500 words) Tokyo: Daigaku Shorin.

Part II: Studies in Native American Languages

TRANSITIVITY INDICATORS *-YU* AND *-WI* IN HUALAPAI

Kumiko Ichihashi

Abstract: The distribution of Hualapai auxiliary verbs *-yu* and *-wi* cannot be explained only by the presence or absence of an object, or by the active or stative feature of the matrix verb. This paper proposes that it can be explained in terms of Transitivity, in that *-wi* corresponds to 'high' Transitivity and *-yu* to 'low' Transitivity of the clause. Several grammatical processes, e.g., the Causative, Applicative and Passive, are examined and it is shown how they interact with the Transitivity of the clause, which correlates with the auxiliary alternation. The speaker's attitude with regard to the nature of the event also affects the evaluation of Transitivity in Hualapai. This suggests that the degree of Transitivity is determined subjectively by the speaker.[1]

1. *-yu, -wi* Auxiliary Verbs in Hualapai

Among the auxiliary verbs in Hualapai, a member of Yuman language family (Upland branch) spoken in the northwest part of Arizona, there are *-yu* and *-wi*, which, along with other auxiliaries like *-i* (< *i:* 'to say') or *-yi* (< *yi:* 'to feel'), developed from lexical verbs *yu:* 'to be' and *wi:* 'to do', respectively. The choice between them has been said to be determined by a lexical property of the matrix verb to which they are attached. However, it is not clear what is meant by 'lexical property' of the verb. Some verbs which take *-yu* (hereafter called '*-yu* verbs') and *-wi* ('*-wi* verbs') are listed below:

(1) ***-yu* verbs**
e:vk **'hear'**, gige:vk **'stand'**, gweda:vk **'be sick'**, hanbachk 'snow', hank **'be good'**, hwakk **'to be two'**, jiba'kk **'come out'**, jibamk **'go out'**, jiqodk **'jump'**, jo:vk **'fight'**, mank **'fall off'**, nya:k **'be black'**, nyimsavk **'be white'**, qalye:vk **'be big'**, qid'u:dkk **'be short'**, skwi:k **'stand'**, sma:k **'sleep'**, u:k **'see'**, viso:k **'take care of'**, viya:dk **'fly'**, viyamk **'run'**, vo:k **'walk'**, wa:k **'sit'**, wamiye:k **'be angry'**, wanya:k **'forget'**, wasi:vk **'think'**, wayo:k **'live, sit'**, ya:mk **'go'**, yakk **'lie'**, yu:k **'be'**, yuwk **'come'**

(2) ***-wi* verbs**
a:vk **'hit'**, ðagwi:vk **'chase'**, e:k **'give'**, gaðohk **'kick'**, gaga:vk **'buy'**, gobgobk **'knock'**, gowa:mk **'drive'**, hwalk **'dig'**, ja:vk **'eat up'**, jigaeðk **'chop'**, jiyalk **'paint'**, le:lk **'tear'**, ma:k **'eat'**, nuwi:dk **'cook'**, sa'adk **'sell'**, sa'amk **'close'**, thamk **'borrow'**, thi:k **'drink'**, yo:k **'get'**, yo:vk **'make'**

From the short list of verbs given above, it might appear that intransitive verbs take *-yu* while transitive verbs take *-wi*. However, even verbs with an overt grammatical object may appear with the *-yu* auxiliary.[2]

Kansas Working Papers in Linguistics, 1991, Volume 16, pp. 111-128

(3) Nya-ch o'o '-ha:m-yu-ny. [WBY][3]
I-Sub fire 3/1-see=at=distance-Aux-Past
'I saw a fire.'

(4) Ma-ch nya mi-spo' mi-da'op-ng[4]-yu. [WBY]
you-Sub I 1/2-know 1/2-not-2-Aux
'You don't know me.'

(5) Ga yu:mo e:v-yu. [WBY]
someone unknown hear-Aux
'I hear someone.'

(6) Hma:nya ba viso:-k-yu. [D]
children Pl take=care=of-3-Aux
'She is taking care of the children.'

(7) Wami:-k-yu. [D]
dislike-3-Aux
'She dislikes him.'

(8) Ma-ch haygu-gwa:w-j wa-m-nya:-ng-yu. [WBY]
you-Sub whiteman-word-Pl heart-3/2-forget-2-Aux
'You forgot English.'

(9) Nya-ch ma wa-nya-si:v-yu. [WBY]
I-Sub you heart-2/1-think-Aux
'I think of you.'

Alternatively, it might be assumed that 'active' verbs take *-wi* and 'stative' verbs take *-yu*. However, this assumption is contradicted by the fact that so-called 'locomotion verbs', which express physical action, take *-yu* instead of *-wi*.

(10) Misi: qacha-ch jikmi:-m vo:-ji-k-yu-ny. [WBY]
girl little=Pl-Sub wash-Loc walk-Pl-3-Aux-Past
'The little girls walked by a wash.'

(11) John-ch viya:m-'i-k-yu-ny. [WBY]
John-Sub run-suddenly-3-Aux-Past
'John suddenly ran.'

(12) Burt-ch jiqodg-i-k-yu. [WBY]
Burt-Sub jump-suddenly-3-Aux
'Burt is jumping.'

(13) Jibay-ch viya:d-'i-k-yu. [WBY]
bird-Sub fly-suddenly-3-Aux
'The bird flew away.'

In the examples above, verbs indicate locomotion of the subject; that is, they do not denote the state of the subject but the action controlled by the subject. These phenomena demonstrate that the choice between *-yu* and *-wi* cannot be explained only by the presence/absence of an object of the verb, or by the active/stative feature of the verb.

In this paper, I will suggest that the distribution of *-yu* and *-wi* in Hualapai may be explained in terms of 'Transitivity' in the sense introduced by Hopper and Thompson (1980), to the extent that when the overall clause shows relatively high Transitivity, it takes *-wi* marking, and when it shows low Transitivity, it takes *-yu* marking. The degree of Transitivity can be determined based upon several parameters relating to the effectiveness or intensity with which the action is transferred from one participant to another (Hopper and Thompson 1980:252). These parameters include the number of participants, the activity indicated by the verb, the telicity and punctuality of the verb, the volitionality of the agent, the agency of participants, and the referentiality and degree of affectedness of the object.

In examples (3) through (9), even though there is a second participant in each clause, it is an object of a cognitive verb and not a 'true' patient; that is, the object is not really affected by the action of the subject. These verbs denote an internal process, not an out-going action, and the volitionality of the subject might be low.[5] Therefore, these clauses can be said to have a low degree of Transitivity, thus coded as 'intransitive' with *-yu*. As for (10) through (13), though the clauses have some high-Transitivity features (e.g., action, volitional), they lack the patient participant which is a crucial component of Transitivity. Alternatively, it can be said that the only participant in each of the sentences has the semantic role of patient or theme, in the sense that it itself undergoes the movement, as well as that of agent, in the sense that it is the instigator of the movement.[6] In any case, there is no transfer of action from one participant to another (different) participant and this reduces the degree of Transitivity of these clauses so that they are low-Transitivity marked by *-yu* in Hualapai.

If the auxiliaries *-wi* and *-yu* really correlate with high and low Transitivity of the clause, a change in the degree of Transitivity should be accompanied by an alternation in the auxiliary. In the following sections, I examine several grammatical processes in Hualapai which manipulate Transitivity features, and show how they motivate the selection of auxiliary *-yu* or *-wi*.

2. Causative Construction

Hualapai has several causative verbal prefixes. According to the classification of Watahomigie, Bender and Yamamoto (1982), they are: *ʔ-* (general causative), *j -* (expressing some quality change), *v -* (expressing some movement change), *s -* (indicating some action by hand), and *g -* (expressing duality with partner(s)). The causative prefix changes the meaning of the stem verb into 'make someone/something do' or 'cause someone/something to do'. In this process, an agentive argument is added which takes over the subject marking *-ch*, while the original subject is demoted to object position and takes the object marking (null). The schematic representation of this process is:

(14) Causative Process
Y-ch Verb --> X-ch Y (causative prefix)-Verb
(X, Y, Z ... indicating arguments)

For example:

(15) a) Nya nyigway-va-ch duv-k-yu. [D]
my shirt-Dem-Sub dry-3-Aux
'My shirt is dry.'

b) Ba'-ch nyigway nyi-wi:-h da-du:v-k-wi. [D]
man-Sub shirt Rel-own-Dem Caus-dry-3-Aux
'The man is drying his shirt.'

As a result of this process, the number of participants is increased (mostly from one to two) and the clause comes to have an explicit agent (causer) and patient (causee). The original clause typically expresses the state of the subject, while the suffixed clause describes the action of the subject causing such a state. Thus, the causative process increases the degree of Transitivity of the clause. In fact, through this process, *-yu* verbs (the majority of the verbs which undergo this process[7]) change into *-wi* verbs as shown in (15) and the following examples:

(16) a) Nya qwaw-va-ch bul-k-yu. [D]
my hair-Dem-Sub be=wet-Aux
'My hair is wet.'

b) Baqi:-h-ch qwaw-a da-bul-k-wi. [D]
lady-Dem-Sub hair-Def Caus-be=wet-3-Aux
'The lady is wetting her hair.'

c) Baqi-h-ch midi:k s-bul-k-wi-ny. [D]
lady-Dem-Sub bean Caus-be=wet-3-Aux-Past
'The lady soaked the beans.'

(17) a) Gwevoyi-'a-ch lap-k-yu. [D]
tire-Def-Sub be=flat-3-Aux
'The tire is flat.'

b) Gwevoyi da-lap-ji-k-wi. [D]
tire Caus-be=flat-Pl-3-Aux
'They flattened the tire.'

(18) a) Nyihak man-j-ay-k-yu. [WBY]
right=there fall-Pl-Irreal-3-Aux
'They are going to fall right there.'

b) Misi'-h-ch hme' qecha ji-man-k-wi-ny. [D]
girl-Dem-Sub boy be=little Caus-fall-3-Aux-Past
'The girl let the little boy fall.'

The auxiliary alternation here reflects the change in the degree of Transitivity. By contrast, *-wi* verbs, which already show high Transitivity, retain *-wi* (see (19f) below). More examples of non-causative/causative pairs:

(19) a) boq'-k (yu) '(something) to spill'
da-boq'-k (wi) 'to spill something'

b) viyam-k (yu) 'to run'
ji-viyam-k (wi) 'to make someone/something run'

c) ya:d-k (yu) 'to fly'
ji-ya:d-k (wi) 'to make something fly'

d) ya:m-k (yu) 'to go away'
ji-ya:m-k (wi) 'to let something/someone go'

e) hwak'-k (yu) 'to be two'
ga-hwak'-k (wi) 'to put two together'

cf. f) gowa:m-k (wi) 'to drive'
vo-gwa:m-k (wi) 'to make someone drive'

3. Applicative Suffix

The valency of the predicate can also be increased by attaching the Applicative verbal suffixes *-o* (after a consonant) / *-yo* (after *y*) / *-wo* (elsewhere). In this case, however, the added argument is non-agentive and is put into the object position while the subject remains in its original position.[8]

(20) Applicative Process
X-ch (Z) Verb --> X-ch Y (Z) Verb-(Applicative suffix)

For example:

(21) a) Malinda-ch swa:d-k-i. [WBY]
Malinda-Sub sing-3-Aux
'Malinda is singing.'

b) Malinda-ch nyi-swa:d-o-k-i. [WBY]
Malinda-Sub 1/3-sing-Appl-3-Aux
'Malinda is singing for me.'

(22) a) John-ch kwasadsa:d-m gwe ma:-k-wi. [WBY]
John-Sub fork-Inst something eat-3-Aux
'John eats with a fork.'

b) Makanya:m John-ch olo' gwe ma:-wo de'op-k-wi-ny. [WBY]
yesterday John-Sub horse something eat-Appl not-3-Aux-Past
'Yesterday John did not feed the horse (make the horse eat).'

The interesting point here is that if there already exists a [-human] object in the clause, the added [+human] object takes over control of the person prefix[9] on the verb, i.e., the added [+human] argument, instead of the [-human] object, is indicated as the object by the person prefix.[10] Further examination would be necessary to decide whether 1) it is always the case that the added object ('indirect' object) is indicated in the person prefix despite its semantic features, or 2) the [+human] object has some kind of priority due to, e.g., i) an 'animacy hierarchy' between objects, or ii) speaker's 'empathy' (cf. Mithun 1990:13). The added argument can be either overt or covert (indicated only by a person prefix on the verb).

(23) a) Nya-ch miyal ø-gaga:v-wi. [WBY]
I-Sub bread 3/1-buy-Aux
'I am buying bread.'

b) Nya-ch miyal nyi-gaga:v-o-wi. [WBY]
I-Sub bread 2/1-buy-Appl-Aux
'I am buying you bread (bread for you)'

(24) a) Gwe ø-gana:v-ay-i. [WBY]
something 3/1-tell-Irreal-Aux
'I am going to tell a story.'

b) Gwe ba nyi-gana:v-o-y-i. [WBY]
something Pl 2/1-tell-Appl-Irreal-Aux
'I am going to tell a story for you all.'

Through this process, the number of participants is increased. The clause which did not have an object before comes to have an affected object. As a result, this process may cause the degree of Transitivity to be increased. Accordingly, the clause which formerly took *-yu* alternates its auxiliary with *-wi* as follows:

(25) a) 'Had nya nyi-hada-ch wa-savlay-k-yu. [WBY]
dog I Rel-pet-Sub heart-be=mean-3-Aux
'My dog is mean.'

b) 'Had nya nyi-hada-ch wa-nyi-savlay-yo-k-wi. [WBY]
dog I Rel-pet-Sub heart-1/3-be=mean-Appl-3-Aux
'My dog makes me mean.'

(26) a) Nya-ch diye:-yu-ny. [WBY]
I-Sub be=happy-Aux-Past
'I was happy.'

b) Nya-ch Mary diye:-wo-wi-ny. [WBY]
I-Sub Mary be=happy-Appl-Aux-Past
'I made Mary happy.'

(27) a) Nya-ch wayala:y-yu-ny. [WBY]
I-Sub be=angry-Aux-Past
'I was angry.'

b) Nya-ch John wayala:y-yo-wi-ny. [WBY]
I-Sub John be=angry-Appl-Aux-Past
'I made John angry.'

4. Passive/Stative and Reflexive/Reciprocal Suffix

The verbal suffix *-v* has two main functions. One of them is to detopicalize the agent argument (by deleting it from subject position) and promote the patient argument (object) to subject position with subject marking *-ch*. Functionally, this is the (agent-less) 'passive' (cf. Yamada 1979). When the suffixed clause describes the state resulting from the action or event, it may also be called the 'stative'. It is difficult to distinguish between the 'passive' and 'stative' based on only the English translation. (28) is the schematic representation of this process, which shows the mirror image of the causative process.[11]

(28) Passive/Stative Process
X-ch Y Verb --> Y-ch Verb-v

For example:

(29) a) Misi'-ch qwaw-a siji-k-wi. [D]
girl-Sub hair-Def brush-3-Aux
'The girl is brushing her hair.'

b) Nya qwaw-ch siji-vi-k-yu. [WBY]
I hair-Sub brush-Pass-3-Aux
'My hair is combed.'

(30) a) Nya qwa:w-ji-v-a jithul-j-y-ay-wi. [WBY]
I hair-Pl-Dem-Def wash-Pl-again-Irreal-Aux
'We will wash our hair again.'

b) Jithul-vi-yu-ny. [WBY]
wash-Pass-Aux-Past
'I took a bath / I am bathed / I am clean.'

Another function of the suffix *-v* is to indicate that the referent(s) of the object are identical with those of the subject. The suffixed clause has reflexive or reciprocal meaning.

(31) Bosa-ch ɑɑɑmo:-v-k-yu. [WBY]
cat-Sub repeat-scratch-Refl-3-Aux
'The cat is scratching itself.'

(32) John-ch Josie-m ɑɑnyu:ɑ-vi-ji-k-yu.[12] [WBY]
John-Sub Josie-Com take-picture-Recip-Pl-3-Aux
'John and Josie are taking pictures of each other.'

When the subject refers to a single entity, the reading must be reflexive since the reciprocal interpretation needs at least two entities. However, when the subject refers to more than one entity, if semantically plausible, it is presumed that the interpretation is ambiguous between the reflexive and reciprocal.

(33) Bosa-ch ɑɑɑmo:-vi-ji-k-yu.
'The cats are scratching themselves / ? each other.'

Also, the verb + -*v* construction can be interpreted either as passive or as reflexive even when the particle *yevm* 'self' is added.

(34) Johna-ch yevm gɑɑoh-vi-k-yu. [Yamamoto 1989:12]
John-Sub self kick-Pass/Refl-3-Aux
'John got kicked (and he was all by himself but it was his own fault).' or 'John kicked himself.'

However, Yamamoto (1989) has pointed out that when the subject is [-human], this ambiguity does not occur and the only possible interpretation is the reflexive.

(35) Olo-h-ch yevm gɑɑoh-vi-k-yu. [Yamamoto 1989:12]
horse-Dem-Sub self kick-Refl-3-Aux
'The horse kicked itself.' but *'The horse got kicked.'

As we shall see in examples (36) through (38), the *v*-construction with [-human] subjects is not necessarily restricted to the reflexive interpretation like (35). We must ask whether the (b) sentences in (36) through (38) indicate not just the state itself but also the process which has brought about the state, e.g., not just 'John's car is in the state of being broken' but also 'John's car got broken' for (36b). If not, it would be hypothesized that the more active (less stative) interpretation (the 'got' interpretation) is associated only with the [+human] subject, while the [-human] subject gets either the reflexive/reciprocal interpretation ([+animate]) or the stative interpretation ([-animate]). The exact nature of correlation between the semantic features of the subject, the semantic nature of the verb, and the possible interpretation of the suffix -*v* should be further examined.

The above-mentioned functions of the suffix -*v* influence the degree of Transitivity of the clause; Transitivity becomes lower than that of the corresponding clause without -*v*. Through the passive/stative process, the agent becomes covert and the only expressed participant is the patient. In addition to decreasing the number of participants, the focus of the clause changes from the action/event itself to the state resulting from the action or event. In the reflexive/reciprocal construction, the action transfer takes place internally; that is, the agent and the

patient refer to one and the same participant or a group of participants, and the action transfer is confined to these participants. As noted by Hopper and Thompson (1980), the non-distinctness ('non-individuated') nature of the patient from the agent is also one component of low Transitivity. As expected, this change in the degree of Transitivity coincides with the auxiliary alternation, that is, the auxiliary *-wi* chages into *-yu*.

(36) a) Misi' qech-e-ch sal-e qaw-k-wi-ny. [D]
girl be=little-Def-Sub hand-Def break-3-Aux-Past
'My daughter broke her arm.'

b) John gweviyam nyigway nyi-wi:-he-ch qaw-v-e-k-yu-ny.[13]
John car be=old Rel-own-Dem-Sub break-Pass-Evid-3-Aux-Past
'John's old car was broken (and I saw it).' [WBY]

(37) a) Nya-ch wa:-h '-se'am-wi. [WBY]
I-Sub door-Dem 3/1-close-Aux
'I am closing the door.'

b) Gwema:jo nya wi:-ji-ch se'am-v-k-yu. [WBY]
cafe I own-Pl-Sub close-Pass-3-Aux
'Our cafe is closed.'

(38) a) Nya-ch wayyi jiyal-wi-ny. [WBY]
I-Sub chair paint-Aux-Past
'I was painting the chair.'

b) Gwe-v-ch gwegiviya:m-e-k jiyal-vi-k-yu. [WBY]
something-Dem-Sub car-Def-on paint-Pass-3-Aux
'Something is smeared on the car.'

(39) a) Mi-h diswi:-k-wi. [D]
foot-Dem shave-3-Aux
'He shaved his leg.'

b) Nya nyahmi:-ch yek'dam
I husband-Sub early=in=the=morning
diswi:-v miyu:-ji-k-yu. [WBY]
shave-Refl alway=be-distributive-3-Aux
'My husband shaves early in the morning.'

(40) a) Phil-ch kwa'-v-m waksi-ma:d-e jigaed-k-wi. [WBY]
Phil-Sub knife-Dem-Inst cow-meat-Def cut-3-Aux
'Phil cuts the beef with the knife.'

b) Nya misi'-h-ch ba:b gijihiyany-di-k jigaed-v-k-yu-ny.
I daughter-Dem-Sub potatoes peel-Temp-SS cut-Refl-3-Aux-Past
'My daugher was peeling potatoes and cut herself.' [WBY]

(41) a) Misi'-h-a ɗəɗnyu:d-k-wi. [D]
girl-Dem-Def take=picture-3-Aux
'She is taking pictures of the girl.'

b) John-ch Josie-m ɗəɗnyu:d-vi-ji-k-yu. [WBY]
John-Sub Josie-Com take=picture-Recip-Pl-3-Aux
'John and Josie are taking pictures of each other.'

Interesting exceptions for this alternation are verb forms of kinship terms and clothing items. They do not change the auxiliary *-wi* to *-yu* when the suffix *-v* is attached.[14]

(42) Ma-'a:w-v-ny-wi. [WBY]
3/2-grandchildren-Pass-2-Aux
'You have grandchildren.'

(43) '-Bi:-v-wi. [WBY]
3/1-nephew/niece-Pass-Aux
'I have a nephew/niece.'

(44) '-Vche'-v-wi. [WBY]
3/1-daughter-Pass-Aux
'I have a daughter.'

(45) Nya-ch bud-a '-bu:d(-v)-wi. [WBY]
I-Sub hat-Def 3/1-hat(-Pass)-Aux
'I have a hat on.'

(46) Nyigway '-nyigway(-v)-wi. [WBY]
shirt 3/1-shirt(-Pass)-Aux
'I have a shirt on.'

In fact, kinship terms and everyday clothing items, along with body parts terms (which do not have verb forms) behave similarly in several grammatical contexts in Hualapai. For example, noun forms of these terms usually use the same frame for possessive expression : [Possessor + Person Marker-Noun], while other terms use different frames (e.g., [Noun + Possessor + Person Marker- *nyihaɗ*] for domesticated animals like 'cow', 'horse', 'cat', etc.).

(47) [Nya qwaw]-va-ch bul-k-yu. [D]
my hair-Dem-Sub be=wet-Aux
'My hair is wet.'

(48) [Joe buda]-ch ya:d-i-k-yu-'. [WBY]
Joe hat-Sub fly=away-suddenly-3-Aux-Past
'Joe's hat flew away.'

(49) [Ma m-dala]-ch [waksi ma m-nyi-haɗ]-a he:d-k-wi. [WBY]
you 2-father-Sub cow you 2-Rel-pet-Def rope-3-Aux
'Your father is roping your cow.'

It should be noted that the demonstrative suffix, which semantically corresponds to and syntactically co-occurs with the possessive pronoun (e.g., *-v* 'this very close one' : 'my', *-ny* 'this/that very one' : 'you', and *-h* 'that one over there' : 'his/her'), is often attached to these terms in order to be felt natural (Watahomigie, Bender and Yamamoto 1982:185). If this demonstrative suffix can be presumed to be the reflex of the obligatory personal affix for these terms, they may be embodied as 'inalienables' and have somewhat distinctive status in Hualapai. The peculiar nature of these terms might explain the exception of the auxiliary alternation here.

5. Speaker's Attitude toward the Nature of the Event

So far we have examined the correlation between the Transitivity alternation and various grammatical processes. In addition, some clauses can show the auxiliary alternation without undergoing any overt grammatical process. In this case, when a clause takes a *-yu* auxiliary, it is said to indicate what is the case, while when a clause takes *-wi*, it is said to imply an accompanying action along with another covert participant's involvement in the action.

(50) a) Misi:-ch walba:-k-yu-ny. [WBY]
girl-Sub believe-3-Aux-Past
'The girl believed it to be true.'

b) Misi:-ch walba:-k-wi-ny. [WBY]
'The girl believed it to be true (and that's why she acted that way).'

(51) a) Nya-ch sme:'-yu. [WBY]
I-Sub miss-Aux
'I miss him.'

b) Nya-ch sme:'-wi. [WBY]
'I miss him (and that's why I am doing it - eg. getting mad at everyone).'

(52) a) Cindy-ch wi'ham jikba:-k-yu. [Yamamoto 1989]
Cindy-Sub hill climb-3-Aux
'Cindy is climbing the hill.'

b) Cindy-ch wi'ham jikba:-k-wi. [Yamamoto 1989]
'Cindy is climbing the hill and you can see it.'

It is difficult to translate this alternation precisely into English. Compared to the corresponding (a) sentences, (50b) and (51b) indicate not only the state of mind of the subject, but also some accompanying action by the subject (which possibly affects some other covert participants). In (52a), Cindy's climbing is reported just as the fact, while in (52b), it is indicated as the progressive action which the speaker and other participants (hearers) are observing. Because of the indication of the additional activity involving another participant, the (b) sentences can be said to have a higher degree of Transitivity than the corresponding (a) sentences, as marked by a *-wi* auxiliary.

Yamamoto (1989) has reported that some *-yu* verbs, which do not take *-wi* when the subject is singlar, allow the auxiliary to alternate when the subject is plural. Examples are from Yamamoto (1989):

(53) a) Vo:-k-yu. 'She is walking.'
b) *Vo:-k-wi.
c) Vo:-j-k-yu. 'They are walking.'
d) Vo:-j-k-wi.

(54) a) De:v-k-yu. 'She is playing.'
b) *De:v-k-wi.
c) Da:y-k-yu. 'They are playing.'
d) Da:y-k-wi.

(55) a) Sma:-k-yu. 'She is sleeping.'
b)*Sma:-k-wi.
c) Sma:-j-k-yu. 'They are sleeping.'
d) Sma:-j-k-wi.

(56) a) Skwi:-k-yu. 'She is standing.'
b)*Skwi:-k-wi.
c) Gige:v-k-yu. 'They are standing.'
d) Gige:v-k-wi.

When the verb takes *-wi* along with the plural subject, some kind of interaction between subject participants is implied. For example:

(57) a) Margaret-ch Jorigine-m ɖanyu:d'u:jo ɖiya:v-k vo:-j-k-yu.
Margaret-Sub Jorigine-Com school face-SS walk-Pl-3-Aux
'Margaret and Jorigine are walking to(ward) school (and this fact is transmitted by the speaker).' [Yamamoto 1989]

b) Margaret-ch Jorigine-m ɖanyu:d'u:jo ɖiya:v-k vo:-j-k-wi.
'Margaret and Jorigine are walking to(ward) school (and they are walking closely together - e.g., holding hands).' [Yamamoto 1989]

One way to look at this phenomenon is to assume that the increased number of participants (even though the number of arguments has not been changed) may increase the Transitivity of the clause. However, this is not the case for the following cognitive verbs (Yamomoto 1989).

(58) a) Jigwad-k-yu. 'She is laughing.'
b)*Jigwad-k-wi.
c) Jigwad-j-k-yu. 'They are laughing.'
d)*Jigwad-j-k-wi.

(59) a) Wamiye-k-yu. 'She is mad.'
b) *Wamiye-k-wi.
c) Wamiye-j-k-yu. 'They are mad.'
d) *Wamiye-j-k-wi

(60) a) Swal-k-yu. 'She loves him.'
b) *Swal-k-wi.
c) Swal-j-k-yu. 'They love him.'
d) *Swal-j-k-wi.

The above data show that the key to the auxiliary change here is the inferred (inter)action between participants rather than just the increased number of participants. No matter how many participants there are, cognition can be still regarded as 'personal'.[15] On the other hand, in clauses like (53) through (56), when there is more than one participant, the additional interaction between participants (besides the action denoted by the verb which is not enough by itself to make the clause coded as 'high' Transitive) can be suggested. This additional activity causes the degree of Transitivity to be increased and the clause is marked with the auxiliary *-wi*.

In sum, we may say that the choice of auxiliary verbs reflects what the speaker describes as a whole event, i.e., the speaker's attitude regarding the active or non-/less-active nature of the event. When the state or fact itself is referred to, the auxiliary *-yu* is used. When the additional action (and possible affectedness) is indicated, *-wi* is used. In other words, how the speaker sees and treats the event also contributes to the degree of Transitivity of the clause.

6. Concluding Remarks

The examination of data in the previous sections leads us to the conclusion that the auxiliary alternation between *-yu* and *-wi* in Hualapai basically corresponds to the perceived degree of Transitivity of the clause. Therefore, the auxiliary *-wi* may be called a 'high-Transitivity marker' and the auxiliary *-yu* a 'low-Transitivity marker'. As we observed in Section 5, the speaker's attitude regarding the active or non-/less-active nature of the event is also an important factor in detremining Transitivity of the clause in Hualapai. Thus, the evaluation for the activity (Kinesis) parameter is not made based upon only the semantics of verbs but also the overall interpretation of utterances, which suggests that the degree of Transitivity is not determined objectively according to the surface form, rather it is evaluated subjectively by the speaker based on the context and the speaker's conceptualization of the event.

Among the Transitivity parameters, the existance of the second and affected participants and the activity indicated by the clause seem to be crucial components for deciding the degree of Transitivity in Hualapai. A further survey would be needed in order to determine to what extent each parameter contributes to the overall degree of Transitivity of the clause.

Investigations in this paper lead us to several further inquiries. More detailed observation about the precise nature of each grammatical process mentioned

here would reveal, e.g., semantic constraints on matrix verbs or arguments for the application of the process. It does not seem that all clauses undergo the auxiliary alternation. Some clauses always take a *-yu* auxiliary (e.g., those containing cognitive verbs as in examples (58) through (60)) and others a *-wi* auxiliary (e.g., those containing 'inalienable' verbs in Section 4). It can be hypothesized that clauses which are marginal members of the *-wi* (more 'high' Transitive) and *-yu* (more 'low' Transitive) categories allow auxiliary alternation more easily than those at the extreme ends of the Transitivity continuum. A certain degree of change in Transitivity might be enough for 'marginal' clauses to go across the boundary between 'high' and 'low' categories. The same degree of change, however, might not be enough for 'extreme' clauses. Also 'true marginal' clauses may fluctuate between 'high' and 'low' categories, that is, alternate the auxiliary, possibly without changing any meaning. If the degree of Transitivity of clauses and changed degree of Transitivity are somehow quantified, these correlations can be represented numerically.

All data used in this paper are individual sentences. Since the degree of Transitivity of a clause seems to be affected also by the context in which the clause is contained, it is necessary in further research to look at texts, and examine how the auxiliary selection is made in wider contexts.

NOTES

[1] I would like to thank members of the Seminar on the Structure of Hualapai (University of Kansas, Fall 1990). Discussions in the class evoked some of the ideas in this paper. I would especially like to thank Dr. Akira Yamamoto for his comments, suggestions and constant encouragement. I would also like to thank Dr. Sandra A. Thompson and Dr. Marianne Mithun for their valuable comments.

[2] Hualapai is an SOV language. The subject and object may be overtly expressed or indicated only by the person prefix on the verb.

[3] Hualapai examples are written using their orthographic system: ch=[č^{h}] but [č] as a subject marker; ny=[ñ]; ɑ=[ɬ]; ' =[ʔ]. Since I have not conducted fieldwork on this language myself, most of examples cited in this paper are taken from Watahomigie, Bender and Yamamoto (1982) (indicated as [WBY]) or Hualapai Dictionary ([D]). Other sources will be specified.

Abbreviations are:

#/#: object/subject person marking	1: 1st person
2: 2nd person	3: 3rd person

Appl: Applicative Suffix
Caus: Causative Prefix
Def: Definitizer
Evid: Evidential Marker
Irreal: Irrealis Suffix
Nom: Nominalizer
Past: Past Tense
Recip: Reciprocal Suffix
Rel: Relative Marker
Sub: Subject Marker

Aux: Auxiliary Verb
Com: Comitative Marker
Dem: Demonstrative
Inst: Instrumental Suffix
Loc: Locative Marker
Pass: Passive/Stative Suffix
Pl: Plural Marker
Refl: Reflexive Suffix
SS: Same Subject Marker
Temp: Temporal Suffix

If more than one English word correspond to a Hualapai word, they are joined by =.

4 Auxiliary verbs in Hualapai still retain some properties of lexical verbs. The matrix verb takes the same subject marker *-k* which indicates that the subject-reference is identical with that of the following (auxiliary) verb; and the auxiliary verb takes a person prefix. The sequence of the same subject marker and person prefix has been omitted totally (in the case of 1st person), changed phonologically (2nd person) or retained (3rd person), and is now reinterpreted as a person marking for auxiliary verbs: 1) 1st person : V-Aux, 2) 2nd person: V-*ng*(<-*k*+*m*-)-Aux, and 3) 3rd person: V-*k*(-*ø*)-Aux.

5 As for example (6), it is not clear whether 'take care of' expresses an emotional state or actual nursing.

6 But note that the θ-criterion in Generative Grammar does not allow two thematic roles to be assigned to the same single argument.

7 Not all verbs may undergo the causative process. The examination of the range of verbs which have causative counterparts and their semantic or syntactic properties are subjects for further research.

8 Here I assume that the Applicative can be distinguished from the causative based on the thematic role (non-agent vs. agent) and grammatical function of the added argument (object vs. subject). Further research is needed to determine the semantic difference between them since sometimes the causative-like translation ('make someone/something do') is obtained as may be hinted at by the English translation of the Applicative construction (see examples (22b), (25b), (26b) and (27b)) . According to the data available, it seems that verbs which take the Applicative suffix and those which take the causative prefix are in complementary distribution. If this is the case, these two affixes may be unified as having the function of adding another argument to the predicate, and it may be determined by, e.g., semantic properties of verbs, whether they take either the Applicative or causative. Whether or not this is indeed the case, what kind of verbs take the causative/Applicative affixes and what kind of verbs do not, and what determines the thematic role of the added argument and the semantic interpretation of the resultant clause are left to further investigation.

9 The person prefix to transitive verbs show the person of the object as well as that of the subject as follows (Watahomigie, Bender and Yamamoto 1982:207, 356):

Object / Subject :	2nd/1st	3/1	1/2	3/2	1/3	2/3	3/3
	ny-	*'-* or *ø-*	*'m-* or *m-*	*m-*	*ny-*	*m-*	*ø-*

(Plurality of the object is indicated by *ba* before the prefix.)

10 This phenomenon is not just a result of the Applicative process. Whenever the verb takes two objects (three-place predicate), the [+human] one is treated as the object in the person marking:

(i) Bill-ch bes nyi-tham-'a-k-wi. [WBY]
Bill-Sub money 1/3-borrow-momentarily-3-Aux
'Bill borrowed money from me for a while.'

(ii) Viwa numa:-ha-ch bes nyi-gava:-k-i-ny. [WBY]
that friend-Dem-Sub money 1/3-ask-3-Aux-Past
'That friend (at whom I am pointing) asked for money for me.'

(iii) Baqi handav qwaw-gi-nyimsaua-ch thabal ba ny'-e:-k-wi-ny
woman pretty hair-Nom-white-Sub peaches Pl 1/3-give-3-Aux-Past
'That pretty woman with white hair gave us peaches.' [WBY]

11 It is interesting that verbs derived by the causative process may also undergo this process and 'reverse' their meaning to produce more of a stative indication than the underived form (even though less stative than the stem verb + *-v*).

(iv) lu:th-k '(something large) to burst'
|
ða-luth-k 'to burst (something large)'
|
ða-luth-v-k '(something large) to be burst'

cf. luth-v-k '(something large) to be burst'

The semantic (and syntactic) relationships among these related forms require further investigation.

12 The noun phrase with the Comitative suffix *-m* can be regarded as a part of the subject since number agreement in the verb here (i.e., *-ji*) shows the plurality of the subject.

13 The verb *qawk* can also be used in the 'unaccusative' construction by itself without the *-v* suffix. Note that it takes *-yu* instead of *-wi* in this case.

(v) Nyi-ya-ch qaw-k-yu. [WBY]
specific-Dem-Sub break-3-Aux
'This very one is broken.'

14 Some verb forms of kinship terms do not seem to take the *-v* suffix.

(vi) John-ch Mary lowe:-k-wi. [WBY]
john-Sub Mary wife-3-Aux
'John is wifed with Mary.'

(vii) Nya-ch John '-nyahmi:-wi. [WBY]
I-Sub John 3/1-husband-Aux
'I am married to John.'

There may be some distinction between the inherent relationship and the affinal relationship which affects the possibility of the *v*-construction.

15 However, as shown in examples (50) and (51), some cognitive verbs can appear with *-wi* (even though the subject is singlar) when an accompanying action is implied. If we assume that it is the transitional stage of extending the notion of Transitivity in Hualapai to include the speaker's implication of an accompanying action in parameters which affect the degree of Transitivity of the clause, these verbs which do not now take a *-wi* auxiliary may also appear with *-wi* in the future if the context potentially suggests an accompanying action.

REFERENCES

Hopper, Paul J. and Sandra A. Thompson. 1980. 'Transitivity in grammar and discourse.' Language, 56(2).251-299.

Mithun, Marianne. 1990. 'Active/agentive case marking and its motivation.' Paper presented at SSILA Summer Meeting (to appear in Language).

Watahomigie, Lucille J., Jorigine Bender and Akira Y. Yamamoto. 1982. Hualapai reference grammar. Los Angeles: American Indian Studies Center, UCLA.

Watahomigie, Lucille J., Jorigine Paya and Akira Y. Yamamoto, compiled. Draft. Hualapai dictionary. Peach Springs, Arizona.

Yamada, Jeni E. 1979. 'Foregrounding constructions in Tolkapaya Yavapai.' Proceedings of the 1979 Hokan Languages Workshop (Occational Papers

on Linguistics 7), ed. by James E. Redden, 25-42. Carbondale, Illinois: Southern Illinois University.

Yamamoto, Akira. 1989. 'Hualapai verbs of being, doing and saying.' Manuscript presented at Linguistic Colloquy, University of Kansas.

PROTO-ALGIC III: Pronouns

Paul Proulx

Abstract: The Proto-Algic demonstrative roots (*w-, *y-) and locatives (*m-, *n-) had 3 inflectional endings, referring to spacial or temporal distributions of entities, and which evolve into the gender systems of Yurok and Algonquian. It had two discourse pronouns: *k- 'previously mentioned', and *t- 'known but not previously mentioned'. *k- is semantically associated with past time; *t- develops into Algonquian future markers. The Algonquian verbs of 'being (somewhere)' also all come from among these deictics. Proto-Algic also had a relative pronoun (*ʔ-), instrumental in the development of some types of changed conjunct, and an associative deictic (*er- 'like another'), which produces a marker of obviation.

0. Introduction

In the previous papers of this series (Proulx 1984a, 1985), which include the reconstructions numbered 1-238, I sketched the phonology and the verbal morphology of Proto-Algic - the ancestor of Proto-Algonquian, Wiyot, and Yurok - demonstrating the simultaneous reconstruction of features of protolanguages of the first and second order as interdependent variables. These papers, despite the methodological innovation involved, illustrated only well known theory about the structure and evolution of language. The present paper, however, is on a topic where our theoretical knowledge about the way languages evolve is growing rapidly - and it thus comes to confirm and elaborate recent theoretical insights.

Traditionally, the focus of Comparative Algonquian (and Algic) linguistics has been phonology, nouns, and especially verbs - and indeed much remains to be done in these areas. Nonetheless, attention of Algonquianists is now increasingly being turned to syntax and discourse analysis - and hence to the study of particles. However, particles are hard to study, especially from a diachronic perspective. Algonquian languages differ widely in their inventory of them, so that standard comparative reconstruction is seldom possible. One senses, at most, structural parallels. Evidently, Algonquian particles are historically unstable.

Kansas Working Papers in Linguistics, 1991, Volume 16, pp. 129-170

Luckily, this very unstability of Algonquian particles suggests a way of studying them: by combining comparative with internal reconstruction, using diachronic universal tendencies as a guide. Such work not only enriches our knowledge of Algonquian and Algic prehistory, it contributes to our growing understanding of the universals involved.

This paper did not begin as a study of particles, but of pronouns. As some of the demonstratives were reconstructed, it began to be apparent that in some of the languages there were particles that greatly resembled them in form. In other cases, one language had a particle which seemed to be a good match for a demonstrative in another. The literature on universals readily explained these similarities in a general way: in many languages of the world demonstrative pronouns are a source for a variety of cliticized particles (see Greenberg 1978). But the history of Algic is a long one involving many languages: there has been time for a great deal of evolution. In its course we see a variety of universal tendencies interacting together in complex ways - and some developments not previously reported as diachronic universal tendencies at all (though consistent with them).

In addition to its implications for linguistic universals, this paper proposes a hypothetical partial account of how animacy gender may have arisen in Algic (from MOTILE/ STATIC categories), and of how initial change could have originated. If these accounts are indeed correct, and if they reflect universals rather than random historical developments, further work on universals may yet come to buttress them.

Besides the prior members of this series, this work rests upon my reconstruction of the demonstrative pronouns of Proto-Algonquian (Proulx 1988), and two other papers. The first (mentioned above) is a study of the universal diachronic tendencies of demonstratives by Greenberg (1978) - where he documents their frequent evolution into discourse pronouns, articles, and ultimately affixes marking such categories as gender and number or simple nominality.

The second is a detailed analysis of Cheyenne deixis by Leman (1984) - where he utilizes his long and intimate acquaintance with this language to trace the subtle semantic links among several of its morphological subsystems: demonstratives, discourse pronouns, locatives, markers of anaphora and cataphora, relative roots and preverbs, and the future tense.

Despite the attention necessarily given to deixis and universal tendencies in the present paper, however, it remains chiefly a reconstruction of the pronouns of Proto-Algic. An

attempt is therefore made at a full reconstruction, even though there are problems with some sets. The reconstruction of personal and interrogative pronouns (secs. 8 and 9) is particularly complex and uncertain, and some readers may prefer to skip these sections. There is no reason why they cannot do so. Somewhat better, but still based on weak evidence, are secs. 2 and 11 (respectively discourse pronouns and inflection). Again, the rest of the paper stands without them, except for part of sec.6 (temporals), which makes reference to the discourse pronouns.

1. Demonstrative Pronouns and Locatives

Demonstrative and locative pronouns are closely related synchronically in the Algonquian languages, with distal inanimate singular demonstratives often serving as spacial locatives and animate singulars as temporal ones. This close association between the two dates back to Proto-Algic, with individual pronouns moving from one set to the other in individual languages. The reconstructible demonstrative stems are:[1]

(239) *wo 'this (restricted)': PA *o: (sg. for both genders), Wiyot wu 'this'.

(240) *wa 'this (personal, extended)': PA *wa 'this (animate sg.)', PA *wa:- [in *wa:-ka: 'this (absentative animate sg.)'], Y wo- [in wok and wo? 'this (personal)']. Cf. W wa 'still [at this time]'.

(241) *we 'this (nonpersonal, extended)': PA *we:- [in *we:ka: 'this (absentative inanimate sg.)'], Y we- [in wek and we? 'this (nonpersonal)'].

(242) *yo 'that (restricted)': PA *yo: 'that (both genders), there', Y yu? 'there'.

(243) *ya 'that (personal, extended), then': PA *aya 'that (animate sg.)', PA *ya:- 'that yonder (animate sg.)' [and *ya:- in *ya:ka: 'that (absentative animate sg.)'], Y yo- [in yok and yo? 'that (personal), he or she, there']; W ya and yak 'then (after doing various other things)', and Ps yakà 'then (future)'. See Proulx (1988:sec.2.2) for prothetic PA *a. Future fieldwork should attempt to distinguish Y yo? and yu? 'there' semantically.

The reconstructible locative stems are:

(244) *ma 'proximal time': PA *ma 'this (animate sg.)', Y mo 'when'.

(245) *na 'distal time': PA *na 'that (animate)', PA *na 'then' (uD ná), PA *na: 'that (animate, absentative)', Y no?oɬ and no:ɬ 'then' [with locative -Vɬ].

(246) *ni 'distal space': PA *ni 'there (nonremote), that (inanimate sg.)', Y ni 'locative' (ni yo? 'here, there', see Robins 1958:103, 145).

These reconstructions assume that the length contrast in final vowels of monosyllables is secondary in Proto-Algonquian (at least in pronouns).

1.1. Vowel Length in Algonquian Monosyllables. In some of the Algonquian languages, the reflexes of vowels in monosyllabic words often differ from their reflexes in longer words. For example, although PA *e: generally gives Mc e [as in Mc wen 'who?' from *(a)we:n- A219], it gives Mc e: in e:t 'that's what she says' from the participle conjunct of PA *ewa 'she says so' A405 [cf. M ɬ:c 'what she says']. Better known are the atonic words of Menominee, whose vowels are often short where a long one would be expected etymologically.

Along the same lines, it now appears that the length of final vowels in syntactically independent monosyllabic Proto-Algic words is noncontrastive: the phonetic length of such vowels was determined chiefly by the presence or absence of stress. Generally, their reflexes coincide with those of short vowels in Algonquian, and with those of long vowels in Wiyot and Yurok (see #240, 241, 243-246 above), except where some atonic by-forms have been preserved as enclitics (see #251, 253 below).

However, it seems likely that in Algonquian final vowels of [stressed] demonstratives were further lengthened to indicate great distance (as is still done among the Kickapoo and Micmac). A lengthened vowel is a natural iconic representation for length of time, and for a great distance, and such representation is probably found in all languages. [It's done with the vowel of English far, for example.]

In Algonquian, this practice gave rise to a contrast of length in the final inflectional vowels of demonstratives, the longer vowels marking a REMOTE category of inflection. This category then evolved into the INACCESSIBLE [=ABSENTATIVE] (see #240, 241, 243). Similarly, the contrast in locatives specifying time gave rise to a DURATIVE category, also marked by the longer vowel (see #244, 245).

The shift of Proto-Algic *i to PA *e in first syllables, well established in longer words, does not on available evidence take place when that *i is word final. Thus, for example, we will

reconstruct PA *ĉi 'hypothetical future' (see sec.6 below).

In contrast to pronouns and other syntactically independent words, PA preverbs (and no doubt prenouns) of the shape CV generally have the reflexes expected in word medial position. However, like their syntactically independent counterparts, these microwords are also exempt from the lowering of Proto-Algic *i. Instead, this vowel is lengthened in accord with the regular complementary distribution of Pre-PA *i: and *i (i.e., the former in the first syllable of a microword, the latter elsewhere). See #247-250 below.

The analysis of PA vowel length as secondary in Proto-Algic words of the shape CV requires revision of #43 and #44:

(247) *wi 'future of volition': PA *wi: (see #44), W wí.

(248) *kha, *khe 'future of obligation': PA *ka [changed *ke:] 'shall, ought to' (see #43), W khé 'might', Y ke in Y kesi 'future time with anaphoric reference to past event' (beside ʔesi 'past time, with similar anaphoric reference to that of kesi', see Robins 1958:101).

Y ki 'can, must, will, ought to' is now seen to be unrelated in origin to this preceding item. Instead, it originates in an 'ability' preverb and its use to mark the future is secondary:

(249) *ki 'can, able to': PA *ki: [C ki:-], Y ki 'can, must, will, ought to', cf. PA *ki:ŝ(i) [Ps kis(i)]. Examples are: swC mwac ki:-atoske:wak 'they can't work', ka-ki:-ni:min na 'are you (physically) able to dance?' (Voorhis 1984a:39-1), Ps 'kisihtun 'she can make it; she made it'.

(250) *ki 'previous action': PA *ki:(h) 'preverb: past' A878 [changed *ka:], W kił 'finished' [with ɬV 'already, finally' incorporated], cf. PA *ki:ŝi 'completed' A945. PA h may be secondary in this item, having spread from those positions where it is automatic by external sandhi. See also *ki:t- 'finish' (7). Examples are: swc ki:-ki:we:w 'she went home', W kił łɬp 'it's cooked' (Teeter 1964:85).

1.2. Gender. Proto-Algic had 3 degrees of animacy in its demonstrative pronouns: PERSONAL (with inflectional *-a), NONPERSONAL (with inflectional *-e), and INANIMATE (with inflectional *-i). It is possible that these degrees of animacy did not form a closed system of gender: rather, entities may have been assigned to a category partly on the basis of immutable characteristics and partly on the basis of transient evaluations (as in Yidiny, see Comrie 1981:189-190). There seems to be a continuation of such a state of affairs to some degree in Yurok,

where someone dead drunk may be classed as nonpersonal rather than personal (Robins 1980:361). [See #240, 241, 243 for the personal-nonpersonal contrast. The inanimate category is indirectly supported by #246, as well as its use in Algonquian.]

As the phonological evolution of Algonquian erases the length contrasts in closed vowels (see Proulx 1984:193), there remains no way to express the accessible-inaccessible contrast for inanimate referents (*-i and *-i: come into complementary distribution, with the latter in first syllables of words) - and nonpersonal *-e: is pressed into service for inaccessible inanimates.

This may have happened as follows. First, Algonquian nouns have come to be inflected for animacy (through concord with demonstratives), and most nouns - being longer than one syllable - have only *-i to mark the inanimate. Now suppose that fish and animals are considered nonpersonal while alive, but become inanimate when killed. There is inflectional machinery to distinguish, say, a living fish one sees (accessible *-e) from one hidden on the bottom (inaccessible *-e:) - but none to distinguish the dead fish that has been stolen (inaccessible) from the one that one is cleaning (accessible). Both would take *-i.

In the second case, if a speaker wishes to emphasize the loss (inaccessibility) of the fish more than its degree of animacy, it could be done by innovating the use of nonpersonal inaccessible *-e: here. Moreover, such situations would be quite common and would be likely to lead to syncretism in the inaccessible endings of the nonpersonal and inanimate categories in nouns, from whence it evidently spread to pronouns.

Perhaps this extended syncretism and leveling contributed to the eventual demise of the nonpersonal category in Algonquian. The main reason for its demise, however, is that personal gender evolves into animate in Algonquian (with inflectional *-a and inaccessible *-a:), absorbing much of the old nonpersonal [notably animals and some trees and personal possessions]. What then remains of the nonpersonal is put together with the inanimate. The PA system which emerges is thus:

*-o: 'restricted'

*-a 'animate', *-a: 'animate inaccessible.'

*-i 'inanimate' *-e: 'inanimate inaccessible'

Algonquian evidence suggests that *-o marked a restricted location, overriding gender distinctions (see Proulx 1988:secs.2.4, 3). Consistent with this, Yurok drops it, while

Wiyot - which eliminates the gender inflection along with gender - retains it. [Wiyot retains *-a and *-i in nongender uses.]

We shall take up other uses of these endings below (sec.11).

2. Discourse Deictics

Discourse pronouns are somewhat harder to reconstruct than demonstratives, and we must depend on analogy and an appeal to universal tendencies.

Greenberg (1978:61, 70, 73) has established a universal tendency for articles to develop out of 'discourse deictics' and ultimately demonstrative pronouns, and to in turn become markers of gender and/or nominal status as they become incorporated into nouns. He further states (ibid. p.73) that 'Subjects, as favorite topics, tend to be definite' - suggesting a possible rôle for former articles as topic markers. This gives the following evolutionary sequence:

DEMONSTRATIVE ---> DISCOURSE DEICTIC ---> article --->

[GENDER / NOMINALITY / SUBJECT / TOPIC MARKER]

Any of the end products [GENDER / NOMINALITY / SUBJECT / TOPIC MARKER] in a daughter language will here be taken as indirect evidence for a discourse pronoun in its protolanguage, provided at least one other daughter language provides direct evidence.[2] Clitics generally mark phrases, and may not have a particular grammatical association with the word which hosts them phonologically (see Klavans 1985:104-105). Hence, there is nothing unexpected about finding one now 'leaning to the left' (i.e., on the prior word), now to the right. Reconstructions are:

(251) *k- (usually restricted *ko, sometimes emphatic *ka) 'the one previously mentioned': PA *-ko (swC e:kote: 'there [at a place previously mentioned]' [Voorhis 1984a:37-4] - with prefixed C e: from *?e [see #257 below], and locative C -te:, e.g., o:te: 'hither, here'), W ku 'that', Y ku 'that, the' [used to modify a noun] and, as relative-interrogative, 'when'. W ka 'that (emphatic)' and kas 'then, at that time', Moose Cree ka:a: 'so that's it!'. Compare PA *ká [and *ké ?] 'enclitic #1' [Proulx 1988:323], Y -k, often postposed to Algic demonstratives.

Other examples of PA *-ko are: swC e:kosi na ki:-ite:w 'did she say that to her [i.e., 'speak thus to her']?' (Voorhis 1984a:45-3), swC e:kosi ka:-ki:-iši-nipahak 'that's how I killed

her' (ibid., p.T2-1); C e:wako and e:yako 'the selfsame (both genders)', e:kosi niki:s-a:cimon wiy e:yako 'Now I have finished telling this one' [Wolfart 1973:37], e:kwah ta:nihi e:h-miywa:siniyikih wiya:sah, e:kota pa:nahike:yiwah tawa:sima 'Then by the best stores of meat, there his children cleared away the snow.' [ibid., p.34], and absentative e:wakwa: 'there she is', e:wakwa: wa:wa:ske:siw 'there goes that elk' [ibid., pp.34-35].

The origin of the wa and ya in these longer forms (C e:wako, e:yako) is not known; perhaps it reflects the incorporation of old demonstratives ['this or that selfsame one'] between **?e and **ko. Such co-occurence of this pronoun with demonstratives is common, though currently the latter are postposed (see Wolfart 1973:37). [Generally speaking, demonstratives can freely precede as well as follow their heads in Cree (ibid., p.33), and it is well known in the history of other languages for demonstratives to be incorporated in one position (before or after) and subsequently optionally added in the other (Greenberg 1978:72, 76).]

The C ko of e:wako does not appear to reflect Pre-C *kwa and *kwi (and thus the stem is not e:wakw-, pace Wolfart 1973:37), since final *kwa and *kwi give C k, as in C amisk 'beaver' from *ameɬkwa A129, and C mistik 'stick' from *me?tekwi A1235. Hence the rarer absentative forms in kw (e.g., C e:wakwa:) are taken to be secondary, and may have developed as follows:

There are only three Cree pronouns with absentative endings (Wolfart 1973:34-35) and 'the pronouns of this type are not common in texts; only the ta:niwa: paradigm is fully exemplified in recently collected texts.' Specifically, he cites only singulars for e:wakw- and an animate singular o:ya: 'that no longer here' beside a full paradigm for ta:niw- 'where is...?'. Moreover, this last is derived from ta:n(i)- 'which?', suggesting that the w in ta:niw- 'where is...?' can be interpreted as part of the inflection.

Now, e:wak(o/w)- is closely associated with ta:ni(w)- not only paradigmatically, but syntactically as well: 'ta:ni is typically counterbalanced by the delimiting demonstrative e:wako' (ibid., page 34). [See the example above with these words boldfaced.] This being the case, it seems likely that the higher frequency pronoun should serve as analogical model for the rarer one: X is to ta:niwa: as e:wako is to ta:ni, yielding analogical e:wako+wa:. I know of no obstruent plus *ow plus vowel sequences in PA - unless the common contraction of the *wi of verb finals before inflectional *-w is old - and so it seems reasonable to suppose that *o dropped in this environment giving the attested forms.

*ko 'the one previously mentioned (restricted)' is not to be confused with *kwa, another discourse marker. This latter is evidently a conjunction rather than a pronoun in origin [and residual function]:

(252) *kwa, *kwe 'foreground': PA *kwa (C e:kwa 'and then', Moose Cree e:ko 'foreground') [James 1986], Y kwesi 'and then (background, subplot)' [Proulx 1980:n.27]. See #257 below for prefixed C e:- from *?e. Yurok incorporates the (distal) associative deictic (sec.3 below), which shifts the meaning to 'background'. Y kwesi is thus for action what obviation is for participants: a mark of 'otherness'.

The other pronominal discourse marker is:

(253) *t- (usually *ta or *ti) 'the one (known but not previously mentioned'): PA *ta 'nominalizing postclitic' (Proulx 1988:324), W ta 'the, some', čɬwa and či 'that's where, what, why, etc.'. Compare uD tá which topicalizes a preceding nominal, and Saulteaux taŝŝ whose function is less clear. Perhaps B -óxt- 'the one in X location' belongs here too. The B -ó would make the form restricted, and B -x a locative ending. Compare also topicalizing Y tu? 'and then', used to begin a paragraph that moves the main action of a story forward (Proulx 1980:297 n.27), and what seems to be its emphatic counterpart to? (ibid. n.38). Finally, compare Y -t in nonpersonal wit 'this or that' [beside wek]. If C -te: '(t)hither' and C -ta '(t)here' is related, it suggests a locative origin for this discourse pronoun.

Examples are: Ab iodá 'this one (inanimate)' beside ió 'this (inanimate)', B spóxta and spóxtsi 'the one [animate, inanimate] above' (from root *eŝp- 'high' A357), W wu tá-phi?s 'this thumb', khi?mɬk ta-ɬácik 'the whale tradition' [lit. 'whale the tradition']; uD máxkwta 'it was a bear' [máxkw 'bear'], Saulteaux ki:n taŝŝ 'How about you?'; Y to? wi ?wenu:woyk? ?uka:mopek? 'Never have I seen such rough water!' [with emphatic wi]. Cree examples are: o:ta 'here', ta:nita 'where?', ta:nite: 'whither?'.

We have seen that the development of an article or quasi-article of this sort into a sign of nominality or topic is a natural one. Indeed, there is some sign of history repeating itself: the distal locative *na is probably the ultimate source for the Wiyot nominalizing particle na 'the one who ... a while ago' (Teeter 1964:66), and uD ná 'topic' (Goddard 1983:356-357). [See sec.6 for a discussion of why a distal locative would be likely to develop into a marker of past tense in Wiyot.]

Examples are: W na ɬɬ-bu-wɬlɬl 'the one who was swimming before', uD náni ntɬnta-pe:há:ne:n 'that's where we waited for her' [with ní 'that (inanimate)'] and nána tɬli-wɬlí:to:n 'she is

the one that made it or them' [with nâ 'that (animate)']. Compare Mc telimkɨp na 'that's what I told her'.

3. Associative Deixis

Proto-Algonquian has a deictic root *eɨ- (and by-form *aɨ-) which in its COMPARATIVE FUNCTION indicates a similarity between the action or entity referred to, on the one hand, and some (verbal or nonverbal) antecedent on the other ['like this or that']. In this it contrasts with a discourse deictic, which signals that an entity is identical with its antecedent.

This root also functions as a TEMPORAL LOCATIVE and SPACIAL ADLOCATIVE, in which case its reference is distal rather than proximal ['then, thither'].

In the Algonquian literature, it is called a relative root, and it is most often glossed 'thus, so, thither' - less frequently 'that kind, (this or that) way, then, there'. It is commonly used (1) as an initial verbal root, (2) as a verbal root following *t- 'be' A2002, (3) as a preverb and prenoun (with terminal *-i), and (4) as a enclitic particle following interrogative and demonstrative pronouns (with terminal *-i).

Each PA usage has matchings in Wiyot and/or Yurok, matchings that call into question the initial and intervocalic Wiyot and Yurok reflexes of Proto-Algic *r as hitherto reconstructed (i.e., W r and Y r).

3.1. The Reflexes of Proto-Algic *r and *l. In order to fully reconstruct the associative deictic of Proto-Algic, it is necessary to abandon the idea that *l and *r are preserved unchanged before vowels in Wiyot and Yurok (other than by shifts in consonant grade). Instead, we must recognize the following correspondences:

PAc	PA	W	Y
*l	*l	l(r)	r(l)
*r	*ŝ(ɨ-)	ŝ(s)	s

By this account, Proto-Algic *r continues to give Pre-PA *ŝ (with a regular secondary alternation of Pre-PA *ŝ to *ɨ before morpheme boundaries),[3] but before vowels it also gives Wiyot ŝ (or s - the two alternate synchronically), and Y s - the reflexes already identified in consonant clusters (see Proulx 1984a:195).

Before vowels, Proto-Algic *l continues to give PA *l and W l, but it gives Y r rather than l (see Proulx 1984a:195 for its reflexes in consonant clusters). The l/r alternations in the Ritwan Sprachbund are now seen to be secondary from *l alone.

This interpretation of the data is a superior one in that it not only provides for the associative deictic (as we shall see below), but as well for Y hasek? 'I think' beside medial PA *-e:l 'think' A255 [reconstructed with a final link vowel *e] - all the while continuing to provide for all previously recognized cognate sets. This item reconstructs as follows:

(254) *a:l-, *e:r-, deverbal medial *-e:l- 'think, feel': W haɬb-'feel so' (Teeter 1964:111), Y has- 'think', PA *-e:lem- 'by thought, think (TA final)'. PA and Wiyot add the concrete final *-Vm 'by feeling, thought, etc.' (Algic #181)]. The pattern in the initial vowel may originally have been like that of 'make, do': *a: (or *á) in initial position (*a:hk- or *áhk- #103, 157), and *e: (or *é) in the medial (*-éhk- #136, 157). If so, the Yurok initial is presumably analogical to the medial.

Examples: W kuc ká-bɨɬ laɬbɨɬ 'she did not feel good concerning that' (Teeter 1964:111), Y hasek? 'I think', NiO maazhendam 'she feels badly' and inendam 'she thinks so' (adding TI *-tam- 'by thought, thinking' (and assimilating the stem final *m to the following *t), Mc ansuwite:t'm 'she feels bad about it', ansuwite:l'mk 'she feels bad about her', tel'te:lemɨk 'she thinks about her' (DeBlois-Metallic 1984).[4]

This account of *r and *l does require a number of corrections in established reconstructions - mostly of *l for *r and the like - but this does not involve any loss of economy, simplicity, or persuasiveness. Corrections are:

Algic #3: Y wo:rew 'roe of one fish' is surely the cognate here, wo:lew 'roe of several fish' a secondary (augmentative) grade variant. Algic #55, 56, 70, 71, 72, 85, 115, 116, 124: no by-form with *r is required for Yurok. Algic #113: the first variant should be *welekwe:ŝkwi, with *l rather than *r. Algic #148, 183: an *l variant is required for Y r. Algic #147, 176: Y l is secondary. Algic #173: Y r is regular from *l. Algic #223: we need *entel- beside *entar- 'be there' - or rather *tel- beside *tar- (see sec.10 below).

These are all very minor details, and on balance do not complicate our analysis. In addition, there is one cognate set for which a complex explanation can be avoided: Y wɨsɨh and PA *wi:lyi 'navel' are simply from *wareyi and infixed *wegeleyi (see Algic #110).

3.2. Associative Deixis in Proto-Algic. With this new analysis, we are in a position to reconstruct the associative deictic of Proto-Algic:

(255) *er-, *ar-, rarely *el- and *al- [generally with *-a or *-i] 'thither, thus, that way, like that, that sort': PA *eŝi-, PA *aŝi- (with loss of *i before a vowel and archaically before a stop [Bloomfield 1946:sec.17, 25], and mutation of *ŝ to *ł before a morpheme boundary unless *i(:) or *y follows); W ił-a- (in the preverb tił-a- 'there, then, thus' - with *t 'be' [see sec.10 below]); Y son- [extended with perhaps the abstract final *-Vn (Algic #177), or perhaps with *n- as in the Wiyot demonstrative nouns wùd and kùd], so:n-, and so:(y)- [with obscure extensions and/or lengthening]. See (c-d) below for more variants. Its four main uses reconstruct as follows:

(a) As initial verbal root: PA *eŝi-, PA *aŝi-, Y son-, so:n-, and so:(y)-. Examples: PA *eła:piwa 'she looks thither or thus' A377, *eła:pame:wa 'she looks at her so' A375, *eła:nko:me:wa 'she has her as (that kind of) relative' A374, M ahpi:w 'she comes to a place' [initial *ał-]. Y soninepek? 'how I feel', kus sił:nił?ws 'how hard or which way is the wind blowing?' (with vowel harmony), so:tok? 'I go so'.

(b) Following *t- 'be': PA *aŝi-, W ił-a- (in the preverb tił-a-'there, then, thus'). Examples: PA *e:ntałesiyani 'where thou art active, where thou dwellest' A265 [*tał- 'there (relative root)' A2022, cf. *t- 'exist (root)' A2002]. W tił-á-takw 'she dwells there'. See Proulx 1985 nos. 221-224, and note that Wiyot requires a grade variant in *l be reconstructed for Proto-Algic [*tal- or *tel- beside *tar-].

(c) As an independent or preposed particle: PA *eŝi 'thus, thither' A337 (preverb and prenoun), mD li mpi:nk 'in the water' (mutation leveled out, O'Meara, p.c.), M ese:h 'that kind or sort', Y hesi 'toward' (e.g., hesi pur 'toward the north'); M as 'there, in place' (e.g., kan as oti:nan 'she isn't there, she isn't in'), RhO zhiw(i) 'there', zhonda 'here' [Ottawa], Y so 'to a place' (e.g., so rek?woy 'to Requoi'), and Y so: 'thus, so' (e.g., so: tenołke?y 'she is so stingy') and Y so:k 'that sort' [with obscure extensions and/or lengthening].[5] Compare postposed Y so 'in a particular direction' (e.g., pa?a:ł so 'into the water'.

(d) As a postposed particle or clitic: PA *-ŝi, Y -s, W -s. Examples: PA *ta:ni eŝi 'how?': K taani isi, Mi taniŝi, C ta:nisi, Ch -tóneše-. M yo:s 'here' (yo: 'this [inan.]); C o:misi 'this

way' [o:ma 'this (inan.)]; M w<:?se:h 'what sort?' [from *we:kw- 'what?' A2158 plus *eši]. Compare Y yu?s 'thither' beside yu? 'there', Y kus 'WH- (e.g., where?, when?, how?)' beside ku 'that', and corresponding W kas 'at that time' (beside ka 'that').

Algonquian seems to have preserved the grade 2-3 (š) form of this element in nearly all cases, replacing PA *š with *ł where required before morpheme boundaries - although the merger of *l and *ł in most languages would make it hard to find evidence of grade 1 *l.

One term does seem to continue the grade 1 variant: PA *elekihkwi 'so much' (F inekihkwi, C iyikohk, M enekoh, cf. M en<:kohkwat 'it's so big around', pgO inikokkwa: 'be a certain size'). For segmentation, compare Mc telki:k 'it's such a size' and apsłki:k 'it's of a small size' (presumably reflecting root plus *-ekihk(w)atki with the usual haplology). PA *el- 'thus, so' is probably rather isolated and obscure in this word, and two cases are recorded where daughter languages reinforce it by prefixing productive *eł- of the same meaning: F inenekihkwa:wi 'it's so big', and M enenekoh 'so much'.

Another reconstruction seems to show PA *el-, in a rather specialized semantic function (which may account for the rarity of grade 1 in the less specialized uses of this element). It is added after higher numbers with roughly the meaning 'that many':

(256) *el-, *al- 'be such a number (over 4)': PA *eli (M ene:h postposition 'number over a decade', e.g., meta:tah nian ene:h '15'); W (hł)l-, e.g., we?sag hłłłd 'they are 5' (cf. kúcłd 'it's one'). Wiyot shows the old pattern for a quinary numeral system, while Menominee has shifted to decimal. Wiyot preserves the archaic pattern too in permitting classifiers after this root: W tłkłłluk łlak '6 fish (or elongated objects)' [beside díkhak '3 fish' - Teeter 1964:36, 39], W wé?sag, ta-?łł-bewí-błcłwł?n 'one dries them 5 days' (ta-dik-bewí-błcłwł?n 'one is drying them 3 days'). The last example shows deletion of the initial short vowel after a preverb ending in a vowel - and an unexplained glottal catch.[6]

Another specialized function of the associative deictic is found in Menominee, where a reduplication of it serves as a prenoun meaning 'like': M <:ses-en<:niw 'like a man'. Parallel formations involving ordinary distal demonstratives - preposed in Algonquian, postposed in Wiyot - are: W ya (e.g., wáyic ya 'like dogs'), B 'anni [Taylor 1969:157] (e.g., ánni otsikékinaxsoàts 'like snowbirds' [Uhlenbeck, under ALIKE], and perhaps Ps ansa (e.g., ansa mihtakwsł 'like her father'). This last could be a compound of the ordinary plus associative deictics.

Now, in my earlier reconstruction of the Algic obviative suffix (and in many other items) glottal catch as the first member of a cluster is attested only by the Wiyot cognate, and is in the proper position to be the result of laryngealization [the final vowel of the obviative suffix has dropped in Wiyot]. Therefore, I am now persuaded that the glottal stop in the Wiyot obviative suffix is a separate morpheme from the one marking obviation (at least in origin).

It is also clear from the Algonquian evidence that the final *-i of the obviative suffix is an inflectional element - replaced by *-e: in the absentative endings (e.g., K -eene 'obviative sg.'). Thus, the proper reconstruction is:

(257) *-Vl, *-Vr 'obviative': PA *-Vli and inaccessible *-Vle:, W -V?l and -V?r, Y -(a)s. This replaces item (30).

The underlying identity between the unmarked Proto-Algic associative deictic *Vr- and *Vl-, on the one hand, and the obviative suffix, on the other, is now obvious. Proto-Algic evidently derived the latter from the former.

In the case of Algic, at least, it is not altogether surprising that this might happen. While most deictic elements make anaphoric reference to a previously mentioned or known entity which is THE SAME as the one being specified, the associative one refers to ANOTHER entity to which the present one (or its location) is being compared ['like that' versus 'that', 'to there' versus 'there']. Association generally implies similarity, but also nonidentity.

This nonidentity may have been with respect to the primary referent of a discourse often enough to lead to its implication (and later specification) of secondary reference. This would have led to its use as a discourse marker (see Goddard 1984), and its syntactic uses would have followed as the result of grammaticalization - especially in redundant environments.

If this is in fact what took place, we may ask how far this had progressed by Proto-Algic times. For example, Yurok lacks what might seem to be one of the main features of obviation, grammaticalization in possessed nouns. Instead, Yurok obviation is largely limited to deictic phrases in sentences whose main verb has a third person subject, and to a verb of being or having (with deictic origins, as we shall see in sec. 10 below).

The exceptions are its use in the adverb woy(s) 'strangely' (of unknown origin), and in emphatic wi(š) in some cases where it does not follow a personal pronoun originating as a demonstrative. The later cases are perhaps secondary to those

cases where it IS part of an old emphatic demonstrative phrase, and it's conceivable that 'strangely' originates in an adverb referring to non-Yurok locations (i.e., 'strange' = 'foreign').

Common cases of Yurok obviation involve its optional use in deictic adverbs: wonew(s) 'above', skeli(š) 'down', now(s) 'away', and several others. Examples are: skeli(š) ?o ?o:linel 'they lay down there', and the compound wonews-leg 'moon [passes iteratively above]' - where it is obligatory. Common also are emphatic personal pronominal phrases, e.g., yo?łkoh wiš 'it is they (who)...' [compare nonobviative wi(?) 'emphatic']. It seems rarer in locative nouns: yoncič kic ?o key 'she sat in the boat' [yonci 'in the boat']. Finally, it is found in the irregular third person forms of ?- 'be, exist, have': ?ok?ws 'there is', ?ok?ws wahpew 'he has a wife' (and its negative counterpart mok?ws).

The close association of obviation and deixis in Yurok surely must reflect the state of affairs in Proto-Algic. The use of obviation in possessed nouns, as in Algonquian and Wiyot, must arise later as deictic verbs of 'being somewhere' come to mean 'exist' and thence 'have' (see sec. 10). This leads to possession joining deixis as an obviative category in these later two languages.

Such a development is natural enough to have been innovated independently in the two cases, but it could also have resulted from a period of common evolution of the two languages after Yurok split off from the parent stock. It can thus be added as a further tenuous bit of evidence for such a grouping within Algic, along with even more tenuous lexicostatistical evidence (see Proulx 1982:191).

It remains to explain why, if they have a common origin, associative deixis is word initial and obviation word final in Algic. Assuming as we do that they originate in a Pre-Proto-Algic deictic pronoun which evolves into an atonic function word and cliticizes, one of two possibilities seems likely: it was placed before the last word or after the first word of a sentence [respectively clitic types 5 or 6, and 3 or 4 - see Klavans 1985:table1].

Since there is plenty of evidence for clitics and particles in second position in Algic sentences, and none I know of for penultimate position, second position seems more likely for this element as well. However, if usage evolved in short sentences consisting of an adverbial or a nominal plus a verb, the two positions would coincide in any case. [The evolution of usage in short sentences seems reasonable: shorter and simpler forms tend to be analogical models for longer and more complex, as in the case of noun singulars being models for new plurals and the

like.]

As it cliticized, the old pronoun tended to 'lean left' in accord with the suffixing nature of Algic - and thus be enclitic to a deictic adverb or demonstrative phrase or the like which preceded the verb. Once this clitic had become incorporated as an inflectional suffix, its position was fixed and it 'traveled' with its host - i.e., other words could intervene between it and the verb. For example, see Yurok 'she sat in the boat' above.

However, in sentences consisting of a single verb, the old pronoun could only become proclitic to it (or change position). In such cases, moreover, it could only refer to the action of the verb ('she sat thus' or 'she went thither') - whereas in the longer sentences it would usually refer redundantly to locations ('she sat there') and gradually to assume its obviative functions. Here too, as the proclitic became incorporated into its host, it began to 'travel' with it. The split in positioning and meaning was achieved.

The foregoing suggests that verbs typically followed adverbs and nominal phrases in Pre-Proto-Algic sentences with the associative deictic.

5. Directional Preverbs

Some directional preverbs or roots seem to originate in deictic pronouns. The associative deictic of Proto-Algic has an adlocative use ['thither'] as we have seen, and in some of the Algonquian languages ordinary distal deictics assume this function: Ps nat- 'go there to', RhO ni- 'go away' [from *na, *ni], and Ch ta- 'away from speaker' [from *ye:] - beside conservative swC it- [changed e:t-] 'thither'. See Proulx (1988:319, 324) for the final Ps t. Compare PA *aɬem- 'off yon way' and *aɬpen- 'off and away', which seem to have the associative deictic as their first syllable.

Examples are: Ps nacihpu 'she goes there to eat' (Leavitt 1985:74), RhO ni-giiwe:d 'go home', Ch é-ta-hóó?óhtse 'she went home' (Leman 1984:336), and swC ta:nite: e:tohte:yan 'where are you going?' (Voorhis 1984a:20-1). The PA reconstructions are: *awaɬe:wa 'she takes her away with her': F awane:wa, C awate:w, M awa:n<:w; *awatawewa 'she takes it away with her': F awato:wa, C awata:w, M awa:ta:w; *aɬem- 'off yon way': F anem-, C atim-, M an<:m-, Mc elm- (changed); and *aɬpenV 'off and away': C aspin, M ahp<:n.

Compare Y hesi and W dák 'toward' [perhaps respectively from associative *eri and distal *na plus enclitic k from #251], e.g., W dák, bú?r and Y hesi pur 'toward the north'.

Proto-Algic also has:

(258) *ma, *me 'go and do': W ba 'go to' (ba láp̨li̱ 'she goes to pick it'), Y me 'went and did' (me tmegok? 'I went hunting'). Compare F mawi- 'go and, go to' (mawa:pame:wa 'she goes to see her') - evidently combining this particle with PA *awi- 'go do' (NiO awi- 'go over to' [RhO nwii-wi-nbaa 'I'm going to bed'], M awe:h- 'go off to perform action'); and compare the PA root *aw- in *awa̱- 'TA: take away', *awat- 'TI: take away', and in C awas 'get away!' and awite: 'so there you are!'. Compare also W bá 'postposed particle: all the way to, beyond' (Teeter 1964:96), and C awasi-, awasite: 'beyond' and awasime: 'further, beyond'. This reconstruction replaces #227 [*mawi-].

Unexpectedly, the Proto-Algic and PA elements reconstructed in #258 resemble the two PROXIMAL demonstratives *m- and *w-.

Motion 'from somewhere', i.e., toward the speaker, is signaled by PA *wenči- 'come from' A2183 [*went- A2189], based on the AI verb *wem-'come' plus the common extension with TI *-(V)t (see Bloomfield 1946:sec.105). C o:- 'from there' evidently preserves the shorter form, with truncation of the *m. Cheyenne has neh- 'toward the speaker', evidently from *ni after the latter has shifted to proximal in that language. Compare W wik, Y me̱ł 'from', which look like proximal demonstratives plus locatives.

Examples are: swC ta:nite: ohtohte:yan 'where are you coming from?' (Voorhis 1984a:20-2), Ch é-nex-hóó?óhtse 'she came home' (Leman 1984:336), W wik, bú?r 'from the north', Y cmeya:n neskwecok? me̱ł kohpey 'yesterday I came back from Crescent City'. Teeter (1964:96-97) states that both W dák 'toward' and wik 'from' may on occasion be translated as 'in the direction of'.

6. Temporal Preverbs

Algic has several temporal preverbs derived from deictic pronouns. In Ojibwa, where demonstrative *ni has not become proximal as it has in Cheyenne, there is a preverb RhO ni- 'in the future; go and do'. Woods Cree has a first person future preverb na- (Greensmith 1985:68-69), e.g., n-a:hđa:w 'I will place her' [ahđa:ci 'as she places her']. These elements suggest that the future is a place one is moving toward.

The other side of the same coin is seen in swC ohci from PA *wenči-'come hither from somewhere', which in addition to its inherited function is used to mark the past tense in negated verbs (replacing ki:- of affirmative ones): swC mwac ohci-ki:we:w 'she didn't go home' beside ki:-ki:we:w 'she went home' and mwac wi:-ki:we:w 'she doesn't want to go home, won't go home' (Voorhis 1984a:11-1). Here the past is metaphorically a location one comes from.

These usages exemplify what Fillmore (1971:28-29) calls 'the moving world metaphor' for time, in which we and the material world are seen as moving forward in it - an idea already perfectly familiar to European culture. Indeed, the future tense in English employs the verb 'going to' as auxiliary, and French and Spanish have parallel formations. Closely related to this is the Algonquian use of *wenči for causes, which are seen as prior to their effects in time: wO we:kone:n onci, Algonquin 8ekonen 8endji, Mh gaquai watschi, Mc koxowey wčit, Mi katoandji, K we:ne:hi oci, N toh wutche, L ten 8agi 'why?'.

There is another way of looking at our changing position in the temporal dimension, which Fillmore calls 'the moving time metaphor', where for example 'tomorrow is comming'. The Iroquoian languages tend to prefer this way of viewing time in which the future - the time yet to come - is seen as the rear part of the temporal dimension, much as the back part of a passing train is the part yet to come.

This explains, for example, the meanings of Mohawk ohá:kɬ 'behind, later' in contrast with PA *wetayenki 'before, behind, earlier' (Proulx 1980a:290) and PA *ni:ka:ni 'in front, ahead, in the future' (F ni:ka:ni, rhO niigaan, C ni:ka:n, Pe níhkvnni [Voorhis 1979:72]). It also accounts for the development of the distal prefix y- into a marker of the past tense in that language (Bonvillain 1981:62), and the use of the proximal prefix to signal the future in Oneida and Cherokee (Abbott 1981:56-57). Contrast this with the opposite developments we have just reviewed in Algonquian, where distal implies future, and proximal past.

Yurok is like Iroquoian rather than Algonquian in this respect: it favors the moving time metaphor. Thus, it has poy(ew) 'before, in front' and hinoy(k) 'after, behind'. The situation is less clear in Wiyot, but if the first syllable of W cbíwan 'afterwards' is related to the last in W wičbí 'behind' - as the respective syllables in W kíɬi 'right now' and wɬkiɬ 'now' presumably are - this language may also be of the Iroquoian type. W mi 'soon' [presumably from the old proximal pronoun] also, if it is an innovation, links the proximal with the future (see #247 above) - and thus points in the same direction. So does the Wiyot nominalizing particle na 'the one who ... a while ago' (Teeter

1964:66) - evidently from the distal demonstrative *na - which links the distal with the past. [There is also W ku waláákw 'that (next) morning', where temporal location relative to the present isn't clear.]

Three temporal preverbs are reconstructed for Proto-Algic: *wi 'assured or volitional future' #247, *ki 'previous action' #250, and *khe, *kha 'future of possibility, obligation, or appropriateness' #248. The first could plausibly be related to PA *awi- 'go do' [discussed in sec.5 above], and ultimately reflect the proximal demonstrative *wí (see Proulx 1988:sec.2.2 for initial PA *a). In any case, *awi- is surely the source for M aw 'preverb: shall, will' - although the M n in the prefixed form [e.g., nenaw] is unexplained. [In Cree and Ojibwa 'will' takes on a secondary meaning 'want' - which may then apply to the past as well as the future: RhO niw waa-miigaan'gojin 'those who wanted to fight her'.]

PA has two more preverbal particles marking the future of possibility, obligation, or appropriateness: *ta (C ta-, RhO da-), and *ĉi (C ci-, RhO ji-, Ch htse-; M cew [-c in prefixed forms, enclitic with demonstratives] 'hypotheitcal, possible, or reported action'; Ab -ji [Laurent 1884], Ps -c, -hc, -ɬc). *ta is used where no prefixes are present - except apparently in the plain conjunct of Cree and Ojibwa, where *ĉi is used. *ĉi is used generally in the other languages cited. In Abenaki, it occurs in particle-typical second position (on any word); it is a preverb in those languages that prefix it.

Examples are: RhO wda-ndawe:ndaan ji-ni-giiwe:d 'she wants to go home', pooj da-wi-nokii 'she has to go to work', ndaa-ni-maajaa 'I ought to leave'; Ch tse-ana?o 'she'll fall off'; M enecewak 'it must be that one (animate)', ayocewak 'it must be this one (animate)', Ab n'damis-ji k'sagamegw 'my dog will bite thee', n'd-ai-ji Molian 'I'll be in Montreal', asma-ji n'wajônôwi 'I shall not have had' (Laurent 1884:122, paradigms); Ps knɬmiyulc 'I'll see you', tan ɬc ɬlu ktɬlehlanen 'what shall we do to her?'; Compare also M cemekat 'as it would seem', and the to in M wɬ:kito(wa)k 'what, I wonder, is it?'.

PA *ta- and *ĉi 'future of possibility' would appear to reflect the Proto-Algic discourse pronoun *t- #253, used for known but previously unmentioned entities. PA *ta:- 'would, could, must, can' (RhO daa-, Moose Cree ta:-) would appear to be a stressed variant of PA *ta-. Compare the second syllables of Y kiti 'future' (kiti ta?anoy?ɬ 'it's going to be hot') and kitu 'future: going to do' (kitu ɬku:?moh 'we're going acorn gathering') - which essentially appear to be there to reinforce the first. *ki 'previous action', on the other hand, surely reflects the other Proto-Algic discourse pronoun: *k- 'the one

previously mentioned' #251. *wi 'assured or volitional future' reflects proximal *w-.

There is no doubt that *w- is proximal, and it seems reasonable to view *k- as distal: it specifies a reference made at another time (not the present). Wiyot and Yurok ku, for example, are glossed 'that'. The position of discourse *t- on the proximal-distal scale is less obvious. However, in my view it can be considered proximal since it specifies a reference only being made in the present (and not at another time). Moreover, it seems likely that discourse deictics evolve from old demonstratives (as they do in Cheyenne), and one cannot imagine where a 'first reference earlier' versus 'now' distinction would come from if not from a distal versus proximal one.

All this establishes that Proto-Algic favored the moving time metaphor. Hence, Algonquian languages have two layers of temporal preverbs: ancient ones inherited from Proto-Algic, where distal = past and proximal = future, and the later innovations with the opposite pattern.[7]

There is a kind of parallel between the findings in this section and those in the previous one on directional preverbs. While it is distal demonstratives that get used to indicate 'motion away' in the various Algonquian innovations - and indeed the associative deictic which serves this function in PA seems to have a distal background - we saw that the reconstructable Proto-Algic preverb *ma, *me 'go and do' #258 looks like a proximal. So too PA *awi- 'go do', certainly related to future *wi and ultimately proximal.

Could the use of proximals for 'going to do' reflect a goal centered reference point as opposed to the speaker centered one we use in English? That is, just as we may take the addressee's point of view and say 'I'm coming over' rather than 'I'm going over' (to someone on the phone), is it not possible that the speaker of Proto-Algic said something equivalent to 'There are lots of berries by the river, and I'm COMING to pick them' (perhaps visualizing the berry patch) where we would say 'I'm GOING to pick them'?

Deixis in the spacial and temporal dimensions is generally quite similar (or identical) in the Algic languages, but if time is viewed as moving toward us, it seems unlikely that space will be similarly visualized. Could not a goal centered reference point for motion in space restore parallel use of preverbs?

There are no answers to these questions within Algic, of course, and hence they lie well beyond the scope of this paper. However, if these speculations are correct, some of the languages

of the world with moving time metaphors will also turn out to have goal centered reference points for verbs of certain kinds of motion.

7. Relative Pronouns

One relative pronoun root is reconstructable for Proto-Algic:

(259) *?- 'relative pronoun: where, when, who, what, why'.

(a) Uses of *?a, *?e. PA *a- (usually changed *e:-) 'preverb complementizer: where, when, who, what'; W ha 'nominalizer, locative of quasi-verbs'; Y ?o 'locative, comparative'. This pronoun seems to go into the formation of verbal nouns of habitual (durative, iterative) action or state for the most part in Algonquian, and was perhaps nearly always stressed.

Examples are: RhO a-bmi-noogseg 'the station' [i.e., 'where it (the train) stops going along'], e:-bngishmog 'in the west' [i.e., 'where it (heavenly body) sets'], B ao?takúsi 'when it's evening' [with preverb a?- 'when, whenever' (Taylor 1969:306), C e:h-pi:htoke:t 'when she came in' (Wolfart 1973:46), Moose Cree e:-takwa:kihk 'in the fall', RhO e:-kandood 'baseball fielder' [i.e., 'the one who is on the lookout'], e:-miijid 'what she eats', swC e:ka: ka:-ohci-oso:niya:miya:n 'because [that's why] I didn't have any money', e:-ki:-a:hkosit 'because she was sick' (Voorhis 1984a:38-1); W ha-táɬi?yɬk 'on my ship', halɬ-wímɬlutwu?y 'what one floats with' (Teeter 1964:82, 48); Y ?o ket?u?l 'there is a lake there', ?o tepo:noɬ 'in a forest', kic numi ?e?gah ?o lekwo?ɬ ku ?o?leɬ 'they were just eating when the house fell in', won so?n ?o ku yok ni hunowoni 'it is different from those that grow here' (Robins 1958:103, 145, 146). See also #245, 246, 262.

The glottal catch in the Blackfoot preverb appears to me to be 'morpheme-final ?' (Taylor 1969:106-108), at least in origin, and similarly the aspiration in C e:h- must have arisen from the actions of external sandhi. W lɬ is also the product of external sandhi (before a root beginning in a w). Compare W halɬ-wɬtkɬnɬgɬɬ 'on her nails' (Teeter 1964:26, 82).

(b) Uses of *?i. PA *e- 'there', W hi 'then (immediately after that)' [see Teeter 1964:88], Y ?i 'where, why, then'. Examples are: C ita 'there', ite: 'thither'; uD ika 'over there', M emes and bO ima 'there'; M <? 'here is, voici' (ayom-<? 'here she is'); W hi-tɬktaliɬ 'then she jumped across' (Teeter 1964:85); Y kus ?i k?eme?wome?mo?w 'where are you from?', wit ?i numi meɬ wecahcew 'that's why it's difficult' (Proulx 1980:297, n.31), tema

łoy ki ?nekweget tu? yo?łkoh ?i nu:?m 'I tried to visit you but they arrived at the time' (Robins 1958:103).

(c) Uses of *?o. PA *o: 'locative [restricted]' (Moose Cree o: 'immediate vicinity' [ta:nta o: 'where (right around here)?']; C ɔ:ta, M omas, bO omâ 'here'; W hu- [hu-tá-lu?lɨwuy 'when they dance', ku?wíl, hu-tá-dɨkw 'persons who die' (Teeter 1964:65, 107)]; Y ?u 'locative' (not 'past' pace Robins 1958:98, sega?ani no:ł sohci ?u gek?ws 'often he found it far up in the hills', where the past tense is clear from the context - texts 166 line 9). Compare Y kitkwo ?u = kitkwela 'still', where ela is probably related to locative ?ela (again not 'past' pace Robins 1958:99): kitkwo ?u megey wi?šk?oh 'it is still mourning to this day', yo? kitkwela nohte?n wecwin 'she is still able to talk' (Robins 1958:118, 102).

It is known that glottal catch dropped in initial position and in consonant clusters in Algonquian (and that glottalized consonants merged with simple), but the very scanty evidence suggests it may have been preserved between vowels (see #218). If so, the relative pronoun may have yielded the PA pronominal locative *-ahi 'locative #1' (Proulx 1988:322), and the durative one *-ahe: 'adlocative', as in Mh nohà 'hither' and náha 'thither'.

8. Personal Pronouns

Algic personal pronouns are built from a dependent medial *-Vl(aw) 'self' plus allocative prefixes:

(260) *k?V́l(aw)a 'thou': (a) PA *ki:l(aw)a A896, W khìl, (b) Y ke?l, kel-.

(261) *k?V́lawa:wa, *k?V́lewa:wa 'ye': (a) PA *ki:lawa:wa, (b) PA *ki:lwa:wa, Y kelew. Compare W khíl waw [or khílɨwaw ?]. Replaces #132, where the PA forms are reconstructed.

(262) *kwVláli, *kwVlíri 'she or it': (a) W kwilɨ?l, (b) Y kwelas. Cf. PA *wi:la A2233 - or *wi:lawa (?), lacking the obviative suffix. Compare also Y ko?l 'something, anything' and ci:ko?l 'everything', without obviation.

Glottalized *k? evidently gives Y k by dissimilation in Y ke?l, and simple Y k in the plural may be analogical. It is uncertain why Y ke?l and ko?l have glottalization, but some other Yurok particles and pronouns do as well - perhaps ultimately from predicative use (see #218).

Final *(wa) is lost in all of the languages, but is set up for PA singulars on the basis of derived forms (see Haas 1967:141). The 'ye' forms evidently lose *(wa) by haplology.

Third person personal pronouns are known to often originate from demonstratives (Greenberb 1978:75), and we have some cases of this in Algic. Clear Lake Ojibwa uses its zero root demonstratives in this way, e.g., kiw 'they = those (animate)'. Similarly, Virginia yowah 'she' (beside yowkk 'this' and yowhs 'these'), and Y yo? 'she = that one (animate)'. Compare Y yo?ɬkoh 'they' (with no demonstrative counterpart).

9. Interrogative Pronouns

Generally speaking, Algic languages have four stems for question words: one each to enquire about (1) persons ['who?'], (2) things ['what?'], and (3) circumstances ['WH-: which, where, how?', etc.] and (4) one for yes-or-no questions. Following particles and sometimes verbal initials generally make further specifications (see Black 1971:148-149 for the details in Ojibwa).

Categories 1 and 2 share the feature of concreteness - the specification of entities. Being so closely related, there is neutralization of the two in some cases. In Cree, for example, nonliving things of animate gender may take either interrogative; if the gender is unknown to the speaker, 'what?' is used (Voorhis 1984a:8-4).

Categories 2 and 3 share the feature 'nonpersonal' ['animate', in Algonquian]. In Cree, again, there is free variation between the two pronouns for forming 'why?' questions: ta:ne:hki and ke:kwa:n ohci 'why?' (Voorhis 1984a:38-1). This variation probably dates back to PA - compare L ten 8agi and Mh gaguai watschi of the same meaning - and seems to be an aspect of a more general rule by which the third interrogative can optionally replace the other two in a clear context [see Black (1971:151) for discussion and Ojibwa examples].

Analogical leveling or reshaping, which not surprisingly is quite common, generally is among words with shared semantic features [1+2, 2+3 - not 1+3 except where 2 is also involved].

For interrogative stems Proto-Algonquian evidently had (1) *we:n- 'who?' A219 [reconstructed with initial *a-], (2) *we:kw- 'what?' A2158, and, for 'WH-', (3a) *t-, (3b) *a:n-, or most commonly the two together: (3c) *ta:n-. For a discussion of the unstable initial *a- in question, which resembles that of some demonstratives, see Proulx (1988:sec.2.2). 'WH-' reconstructs as

follows:

PA *t-, *a:n-, *ta:n- 'WH-': (a) B t-; (b) M a:n-, O a:n-; (c) F, K, C, M, bO ta:n-, Mi, Ps, Mc tan-, Ab, Mh tan-, N, Ch ton-. Short forms lacking the *n are found, notably in several Middle Atlantic and (formerly) adjacent languages: M a:?, N toh(hen), L ten, uD tá, and Montagnais ta espich 'quand?' (Silvy 1678-84:151). Perhaps related as well are Mc teken 'which?', Ab tsigá, L takatch, and Mh tákatch 'when?', and Ch tosa?a, Mc tami, and Ps tama 'where?'. It may also be noteworthy that the languages with stem 3b (*a:n-) are just those with zero-root demonstratives [see Proulx 1988:sec. 4.3].

In most of the Algonquian languages, the 'wh-' interrogative is also used as a relative pronoun, which may help explain stem 3b. PA *a:n- may reflect Pre-PA *?a:n-, composed of Proto-Algic *?- 'relative pronoun' plus analogical *-a:n from interrogative *ta:n-. If so, Algonquian has simply lost the contrast between Pre-PA *?a:n- 'relative pronoun' and *ta:n- 'wh-'.

The 3 supplementary question stems of Algonquian are rather unstable historically, with a marked tendency for analogical replacement or reshaping to occur within the set along the lines mentioned above. For example:

PA	Kickapoo	NWR Montagnais	Blackfoot	
*we:na	we:ne:ha	[če:kw]e:n	[t]a- (AN sg.)	'who?'
*we:kwi	[we:n]e:hi	če:kw[a:n]	[ts]i- (IN sg.)	'what?'
*t(a:n)-	ta:n-	ta:n-	t-	'WH-?'

Bracketed roots are analogical to an adjacent ones in the same column: 'what?' becomes an inanimate counterpart of 'who?' in Kickapoo; the Montagnais root for 'what?' has been replaced by a borrowed indefinite pronoun, its reflex of *ke:kw- 'something' (Ps kȅkw-), and it has spread to 'who?'; and so forth. Note also that *-a:n has spread from 'WH-?' to 'what?' in NWR Montagnais (and in Moose Cree, which has ke:kwa:n).

These pronouns most commonly inflect for the singular, but plurals are attested: C awi:niki 'who (anim. pl.)?', and C ki:kwaya 'what (inan. pl.) ones?' [Wolfart 1973:34-35, reflecting a dialect that has i: from *e:]. As these examples show, the inflectional finals pattern as they do for demonstratives: stems ending in nasals require link vowel *i, those in semivowels *a.

9.1. Proto-Algic Interrogatives. Just as some Algonquian languages have analogically replaced some interrogative elements, Wiyot and Yurok have leveled parts of the Proto-Algic system. This and several phonological difficulties make the reconstructions which follow tentative:

(263) *tá:ɬ- or *tV́ɬ?- 'WH-?': PA *t(a:n)-[reconstructed above], W táɬwa (with W -wa 'interrogative'). Cf. PA *a:n- (from relative *?a:n- ?). Recall that **ɬ gives PA *n, W l, and Y ɬ before a word-final vowel (see items 31, 32), and W l regularly loses voice in a consonant cluster (see Proulx 1982:120, 1984a:sec.6). Stress is suggested by Mc ta:n, although the vowel length here could result from the monosyllabic character of the word. The alternate reconstruction with the link vowel and glottalized *ɬ? is suggested by #265-266.

(264) *wékwi 'what?': PA *we:kw- A2158, W kwáɬwa. W -áɬ is analogical from the previous item, in just the manner of Cree-Montagnais -a:n above, and its stress evidently suppresses that of the previous syllable (see Teeter 1964:27). *we drops initially before a single obstruent in Wiyot (as in the set 1b prefixes - see Proulx 1984a:169), leaving only labialization of a following **k (which is already labial in this case). Stress on a vowel causes it to lengthen in PA.

(265) *wV́ɬ?a 'who?': PA *we:n- A219, W kwíɬwa [cf. kwíɬta 'somebody', ku?wíl 'living person' - root ku?w- 'be alive' (Teeter 1964:107)], Y ti?now. The Wiyot root is analogical to the preceding item, the Yurok one to the next preceding one. The final Y -w may be from the emphatic postposition *wé #259 - or perhaps it is related to W -wa 'interrogative'.

Glottalized nonstops merge with simple in PA and Wiyot. As for Yurok ?n, there is some irregular (and sometimes optional) synchronic alternation of stem final ɬ (and l) to n when preglottalized by the third person inflection Y -?: lekwo?ɬ ~ lekwo?n 'she falls' [stem lekwoɬ-, Robins 1958:38]. Evidently then, **ɬ? regularly gives PA *n, W l [ɬ in clusters], and Y ?n before a word final vowel. The first and last items apparently contain by-forms of the same second element:

(266) *-V́ɬ?- '----': *tá:ɬ?- or *tá:ɬ- 'WH-?', *wV́ɬ?a 'who?' (PA *we:n- A219, W kwíɬwa), cf. Y ti?now 'who?', and W kwáɬwa, Y ti?n(iŝow) 'what?'.

It is clear from the Algonquian evidence (e.g., B t-, O a:n-, and analogical C -a:n), as well as its analogical spread in Wiyot, that *-á:ɬ?- at least is a separate element. Hence, its

first vowel could be a link vowel. As for *-V́ɬ?a in #265, the reconstruction is only valid if its first vowel is a link one.

Differing link vowels in otherwise cognate sequences are not unknown: compare link *e: in PA *-e:lanyiw (reflected in C nite:yaniy, M net<:naniw-, O nɨnte:naniw 'my tongue') with link *i: in PA *-i:lanyiw (reflected in most of the other languages, e.g., F ni:naniwi). [The differing form of the prefix is automatic before these vowels.] For Algic, there are the personal pronouns, and a body-part noun:

(267) *-skwVtkani 'neck': PA *-ɬkwe:kani (#165), W (hu)wɬswitkɬdɨ?l 'her neck', with medial *-Vskw (#165). For the loss of *t between a long vowel and obstruent in PA, note the same loss in Ojibwa (Bloomfield 1957:53) and compare losses of *n in the same environment (Proulx 1964:196).

Differing link vowels thus do seem to be found in otherwise cognate sequences, and there is no reason to doubt that *-Vɬ?- is just such a case.

The Proto-Algic interrogatives thus form the following system:

Proto-Algic	PA	Wiyot	Yurok	
**wV́ɬ?a	*we:na	[kw]íɬwa	[t]i?now	'who?'
**wékwi	*we:kwi	kwáɬwa	[t]i?n(iŝow)	'what?'
**tV́ɬ?-	*t(a:n)-	táɬwa	kus	'WH-?'

The bracketed roots in Wiyot and Yurok are analogical.

The ultimate source for Y ti?n- is *t-, which spreads upwards through the Pre-Yurok set, and *-íɬ? which spread upwards or downwards. After the leveling was complete, Yurok replaced 'WH-?' with kus - evidently an interrogative counterpart of Y ku 'the, that, when' (from **ko: 'the aforementioned' #251 above).

It is obvious that these items have constituent parts: *w-, homophonous and perhaps identical with the proximal demonstrative (with which it shares the unstable initial PA *a-); the root *t- originating from *t- 'the one known but previously unmentioned' [#253 above], in much the same manner that Y kus originates from *ko:; and *-Vɬ?- #266.

If *w- is in fact a demonstrative, it's function could probably could be reinforced by postposition - Algonquian

demonstratives are optionally preposed and postposed to their heads - and this may be the origin of final W -wa in the first two items (especially as its initial manifestations have been lost). The third item would show analogical leveling in this respect.

10. To Be (Somewhere)

Deictic and interrogative pronouns often are homophonous with the roots of verbs 'to be' - and sometimes 'to have'. In Proto-Indo-European, for example, compare the discourse deictic *sV with *(e)s- 'be' (Meillet 1937:326, 199). Such similarities are also found in Algic, with distal PA *(a)y-, for example, resembling the root in C aya:w 'she's there, she is, she has it', and changed conjunct Ps eyit 'when she was there, when she had it'.

This is not entirely surprising, since the 'be' verbs typically have 2 or more of the following meanings: (1) 'be [in a certain place]', (2) 'be at home'; (3) 'stay [in a certain place]', (4) 'dwell somewhere', and (5) 'exist [in a certain place]'. All of these meanings signal position, usually anaphorically. As for verbs of 'having', they are related to those of 'being' via the equivalence of sentences such as 'it is hers' and 'she has it'.

Algic languages often have nonverbal predicators, which may be nouns, pronouns or particles, and which (in some languages) take verb-like inflection: W máti? 'it was wood, there was wood', Algonquin asinitokenan 'c'est peut-être des pierres' (Cuoq 1966:40), Mc witapewat‡p'nn 'she was their friend'; M ene? 'it is that, there, then' (eneh 'that', enes 'there, then'), Mc mu nek'mewey 'she or it isn't hers' (nek'm 'she'); C a:stamitik '(you pl.) come here!' [a:stam '(you sg.) come here!'].

In all of these constructions, as well as in equational sentences, the idea of 'being' is expressed by a zero root whose inflection (if any) is added to the preceding word. It seems plausible therefore to see in the various verbs 'to be' (a) old locative pronouns used in preverbal position, plus (b) a zero root 'to be', and (c) inflection.

10.1. Yurok. Let us consider, for example, the origins of Yurok ?- 'be, have, exist, dwell', as in Y ?ok?w 'she is (there)', ?ok?ws wahpew 'he has a wife', and kus ?o:?m 'where do you live?'. By the hypothesis just sketched, it must have evolved from the locative particle Y ?o - and ultimately its Proto-Algic antecedent, the relative pronoun *?a 'where, when, who, what, why' #261.

10.2. Proto-Algic *t-. Another verb 'to be' with likely origins in a deictic pronoun is Proto-Algic *t- 'be, exist, dwell' #221, presumably from a locative use of the Pre-Proto-Algic pronoun which also becomes discourse *t- 'the known but previously unmentioned ... [place]'.

This locative origin is seen in the following. First, inflected with *-a, it forms a verb *ta:- 'to exist (somewhere), stay, dwell' [#222].

Second, the same locative function is seen in W t- 'relative/ interrogative of location' (e.g., W tɬwa 'where?', táɬka 'wherever, whenever', ĉi 'that's where'). Compare also Y toy 'there'. This item is perhaps related to *táɬ?- (or *ta:ɬ-) 'wh-?' [e.g., 'where, when'] #263. Its original function is perhaps interrogative, but if so it also generally replaces relative *?- in PA and Wiyot (where *? drops). O a:n- would be an example of nonreplacement.

Third, an enclitic PA *t- [from *t- 'be' ?], inserted between a demonstrative pronoun and PA *-ahkạ [from *al-ka ?] 'in the direction of' signals a fixed spot: Ab tãndahká 'where' versus K taanahka 'where to?', and Pe natáhk 'there' (Voorhis 1979:72) versus F manahka 'in this direction' [with Pe na 'that (animate)', and F man-'this'].

Fourth, prefixed to a directional root in Algonquian it removes any connotation of motion. For example, with the associative deictic *aɬ-'thither' - generally attested elsewhere in its e-grade vowel form - it forms a composite root *taɬ- [with *e:n- prefixed for initial change] 'there' #223, usually used as a preverb, specifying static locations. Thus, compare Pe taɬ- 'at that place' versus aɬ- 'to that place' (Voorhis 1979:71), M tano:hn<w 'she walks there, then, through that length of time' versus eno:hn<w 'she walks thither, in that direction, thus', and F tana:piwa 'she looks there' versus ina:piwa 'she looks thither'.

It is possible to suggest an etymology for the unique kind of initial change found in this stem in PA. Changed *e:ntaɬ- perhaps reflects the sequence: relative *?a 'where, when, etc.' #259a plus demonstrative *ni 'there' #246, plus *tar- 'at that place' #223. There is regular initial change (PA *e: from *a), and the archaic but regular loss of *i before an element beginning in *p, *t, and *k (Bloomfield 1946:sec.17) as in the case of preposed *aɬ- 'thus, thither' (see #255).

Evidently, the relative and locative pronouns were only incorporated into this stem in the changed mode of the conjunct

[presumably at a time when participles, iteratives, and the like had yet to split into separate modes]. No doubt it expressed the extra specification of location in a verb phrase meaning, e.g., 'there where she walked' (in contrast to independent 'she walked there', and simple conjunct 'where she walked'). [This type of initial change became generally associated with the Algonquian root *t- 'be' in several of the languages (but not Micmac), spreading to other stems in which *t- occurs. In Cree and Menominee, unchanged counterparts of the prefix were analogically created.]

10.3. Continuative Aspect. *t 'be' develops into a marker of continuative aspect in both Wiyot and Passamaquoddy. In Wiyot, *ta is involved: W ta- 'durative preverb' (e.g., khwɬli ya ta-lɔlit 'are you going around here?' - Teeter 1964:88, 104). In Passamaquoddy, it is the composite root *tal- [with initial change *e:n-]: Ps tɬlluhke 'she is working', etɬlɬluhket 'when she was working' (beside luhke 'she works', eluhket 'when she worked').

It does not seem entirely clear in the Wiyot case if the preverb derives from the verb 'to be permanently located' or directly from its source pronoun - but its verbal origin is clear enough in Passamaquoddy, where the PA source is well known (see A264-265). Moreover, the use of a verb 'to be' for continuative aspect is seen in other languages, e.g., Spanish está ...-ndo 'she's ...-ing' (as well as in English). Hence, this is probably the path of development in Wiyot as well.

Blackfoot also has a preverb of continuative aspect, aa-. Its origins are not certain, but it could reflect PA *ay- 'be there' [Saulteaux and Cree aya:-, Ottawa ya:-, Pe ayi- (Voorhis 1979:58), Ps eyi- and Mc ey'm- (changed conjunct), M i:-]. This in turn is from Proto-Algic *y- 'distal demonstrative'. It is not certain what the stem final was in PA, but it may be significant that those languages with final -a: after this root include permanent location ['dwell, exist'] in the meaning of the stem (thus putting it in competition with *ta:- 'be, exist, dwell'). [For loss of *y between a's, compare B taàa beside presumably analogical tayáa 'who, which (animate)?' - composed of interrogative t- plus animate singular -a plus enclitic yá.]

11. Inflection

We have seen in sec.1.2. that Proto-Algic had 3 degrees of animacy in its demonstrative pronouns: PERSONAL (with inflectional *-a), NONPERSONAL (with inflectional *-e), and INANIMATE (with inflectional *-i). Overriding these distinctions, demonstratives also had a RESTRICTED category (with inflectional *-o). In this

section we take up other uses of these inflectional vowels in deictics.

The attested Algic languages are somewhat inconsistent in their nongender uses of the inflectional vowels, but a few contrasts provide clues about the original situation. The best of these is that in Algonquian a shift of *-i to *-a in monosyllabic temporal preverbs functions much like the addition of the iterative infix *-eg- #25, where both signal initial change. Although initial change has been grammaticalized in PA, its original function is to convey iteration and to form participles of habitual action ('the one who always does X'). Hence, one can suspect an iterative background for *-a as well, versus singleness of occurrence for *-i. Similarly, Cree and Ojibwa use *ĉi 'future of possibility' in the plain conjunct, but *ta in the other (mostly changed) modes of the conjunct.

An iterative meaning for *-a explains why relative *?a turns into PA *a- (usually changed *e:-) 'preverb complementizer: where, when, who, what' and W ha 'nominalizer'. The resulting participles express habitual (durative, iterative) action or state for the most part. In contrast, *?i provides chiefly locatives of precise static location: PA *e-'there', Y ?i 'where, why', and W hi 'then (immediately after that)'.

Apart from its use for single specific occurrences, *-i is generally replaced by *-a in temporal locatives. Thus, compare *ma 'proximal time: when' #244 and *na 'distal time: then' #245 with *ni 'distal space: there' #246. Compare also W kas 'then, at that time', ya and yak 'then (after doing various other things)' [Teeter 1964:88], and W wa 'still [continuing to this time]'. This, together with our finding in sec.6 that Proto-Algic favored 'moving time' rather than 'moving world' metaphors in relating time and space, suggests that *-a was used for moving entities as well as iteration and the like - while *-i is static in contrast.

*-e is rarely preserved outside of Algonquian, and where it is its use generally seems similar to that of *-a. Thus, it indicates motion in Y me 'went and did' (but compare W ba 'go to do', see #258). Compare also C -me: in awasime: 'further, beyond' with W bá postposed particle 'all the way to, beyond'. Similarly, like *-a it seems to relate to time in W ditbé 'two times' and damé 'four times', versus space in W kucbi 'one place' with *-i. However, it also has a characteristic reconstructible use as the inflection of adverbial locatives (generally adlocatives and translocatives):

(268) *-é 'adverbial locative': PA *-e: (F, K -e; C -e:), W -è (usually attested as -é since it is rarely breath-group final). Examples: F na:hkani-tepehkwe 'all night', F

na:wi-kehčikami:we 'in the middle of the sea', K ni kiiseθwe 'in that month', K náisaapwahkiihe 'in the middle of the street', C awasite: 'on the further side (in time or space)', C o:te: 'hither' [beside o:ta 'here'], W kukwè 'in the old days', W dałé 'from behind'.

As the examples show, where duration, motion, or distance from a reference point are involved, this inflection is used for reference to space as well as time. It is only when a specific static point is mentioned that locative *-i is used (compare Mh nohà 'here to me' and K yoohi 'here'). In light of the relative similarity of their (nongender) meanings - and the fact that they are vowel grades of each other - it seems likely that *-e and *-a have a common origin.

*-o has a wide variety of uses besides restricted location, in which I discern no pattern (perhaps because it is so poorly preserved in Algonquian, the branch of Algic I know best). It is used to help form plurals in Wiyot, and in a topic marker in Yurok: W tu 'verbal plural', and topicalizing Y tu? 'and then'. It is unmarked against emphatic *-a in Yurok: compare the emphatic topic marker Y to?. There is also the preverb Y nu 'come, go', and ku 'go and do (future)' beside Y ki 'future'. Other examples:

*ko 'the one previously mentioned (restricted)' (#251): PA *-ko (swC e:kote: 'there [at a place previously mentioned]' [Voorhis 1984a:37-4], W ku 'that', Y ku 'that, the' [used to modify a noun] and as relative-interrogative 'when'. Compare W ku '(back) again': kwis-ku-lúwił 'suddenly she came back again' (Teeter 1964:88).

*?o 'relative pronoun (restricted)' (#259c): PA *o: 'locative [restricted]' (Moose Cree o: 'immediate vicinity' [ta:nta o: 'where (right around here)?']; C o:ta, M omas, bO omâ 'here'; W hu-[hu-tá-lu?łwuy 'when they dance', ku?wíl, hu-tá-dłkw 'persons who die' (Teeter 1964:65, 107)].

This gives the following spacio-temporal inflectional endings in deictics (besides *-Vnki 'locative' #34 in nouns):

(269) *-e [meliorative *-a] 'extended, motile, durative'. Since *e is by far the most common Proto-Algic vowel, this suffix was probably a neutral one which achieved its meaning only from the contrast with the other two (below), and meliorative vowel grade. See #268.

(270) *-i '(extended ?), static, punctual'. The 'extended' category is clear in Blackfoot (and no doubt present in PA), but its Proto-Algic status is uncertain. As an alternative, it could have been neutral with respect to the extended-restricted

contrast.

(271) *-o 'restricted'.

Algic gender could well have arisen out of the association of high animacy with motility, and that of persons with the meliorative vowel grade. Hence, where MOTILE entities are involved, personal gender would be expressed with meliorative *-a and nonpersonal gender with neutral *-e. Inanimate entities would be static, and thus would take *-i. If so, this 3 category quasi-gender system could have given rise to the differing gender systems of PA and Yurok directly - and we perhaps should not reconstruct fully-developed gender for Proto-Algic at all.

12. Discussion

We have seen how the Proto-Algic demonstrative and discourse pronouns have evolved not only into the sorts of grammatical markers Greenberg uncovered (mainly in the Bantu languages), but into some others as well. Sometimes the mechanisms of change are simple: one component of the meaning of a pronoun is selected, and the pronoun becomes a marker of it. Examples of this are 'otherness' in the associative deictic giving rise to obviation, and 'being there' in several instances giving rise to 'being'.

Another proposed universal tendency, for which there is considerable evidence in Algonquian (see Proulx 1988:318), is that distals evolve into proximals but not vice versa. The question that naturally arises is: if distals keep changing into proximals, where do all the distals come from? In such semantic domains as color nomenclature and cardinal directions, old terms are constantly being replaced by words specifying more salient entities closely associated with them: 'red' by 'bloody', 'south' by 'noonday (sun)', and the like. So the question becomes: what salient entities are associated with distal position?

As one of the two sets of PA demonstratives I reconstructed elsewhere (Proulx 1988:315-317) are locatives in the Proto-Algic system, it appears that locatives are a possible source for demonstratives (if the semantics are correct in the two reconstructions). That is, a position in space is more salient than an entity located at a specified position - perhaps because it's semantically simpler.

What we have here is semantic evolution from the simple (and specific) to the complex (and general), with diminishing salience. The further evolution of demonstratives into discourse pronouns continues this pattern, for the latter additionally

specify prior mention or assumed knowledge of the entity specified. It is only once an element cliticizes that grammaticalization begins - and with it renewed semantic simplification.

13. Conclusions

Proto-Algic had two single-consonant demonstrative roots (*w-, *y-) and two locatives (*m-, *n-), each with a labial for the proximate and a palatal for distal reference. It had two discourse pronouns: *k- 'previously mentioned', and *t- 'known but not previously mentioned'. The former is semantically associated with past time, the latter develops into Algonquian future markers.

The inflection consisted of only 3 endings, all referring to the distribution of entities relative to spacial or temporal dimensions (with past = distal, future = proximal): *-e [meliorative *-a] 'extended, motile, durative', *-i '(extended ?), static, punctual', *-o 'restricted'. The development of the MOTILE-STATIC and vowel grade distinctions into those of gender follows quite naturally [e.g., humans are +MOTILE, +MELIORATIVE]. It is not certain if this had crystallized into a gender system in Proto-Algic, or whether it did - in slightly differing ways - in Algonquian and Yurok.

The following deictics (with temporals in parentheses) are reconstructible:

	PROXIMAL	DISTAL
DEMONSTRATIVES:	*wo, *wa, *we, (*wi)	*yo, *ya
LOCATIVES:	*ma, *me	*na, *ni

	KNOWN BUT UNMENTIONED	PREVIOUSLY MENTIONED
DISCOURSE	*ta, *ti	*ko, *ka, (*ki)

Proto-Algic also had an associative deictic (*er- 'like another'), a relative pronoun (*?-), a personal pronoun base (*-Vl[aw]-), and a set of interrogative pronouns (*wV$\frac{1}{2}$?a 'who?', *wékwi 'what?', *tV$\frac{1}{2}$?a 'wh-?').

Algic demonstratives and discourse pronouns have evolved

along the following lines: LOCATIVES ---> DEMONSTRATIVES ---> DISCOURSE P., all of these ===> VERBS 'TO BE', TOPIC MARKERS, ASSOCIATIVE P. and the last ---> OBVIATIVE.

NOTES

1. Languages, their abbreviations, and the sources from which they are generally cited are as follows: Abenaki-Ab-Laurent (1884), Day (1964); Plains Cree-C-Bloomfield (ms.); Swampy Cree-swC-Voorhis (1984a); Western Cree-fwC-Faries and Watkins (1938); Delaware-D-Goddard (1969)<uD=Unami, mD=Munsee>; Fox-F-Bloomfield (ms.); Kickapoo-K-Voorhis (1974); Loup-L-Day (1975); Mahican-Mh-Mastay (1982); Menominee-M-Bloomfield (1975); Miami-Mi-Voegelin (1937-40); Micmac-Mc-Proulx (field notes), DeBlois and Metallic (1984); Natick-N-Trumbull (1903); Ojibwa-O-Bloomfield (1957); Central Ojibwa-bO-Barraga (1878); Western Ojibwa-NiO-Nichols (1979); Central and Eastern Ojibwa-RhO-Rhodes (1985); Passamaquoddy-Ps-LeSourd (1984); Penobscot-Pe-Voorhis (1979); Proto-Algic-PAc-Proulx (1984); Proto-Algonquian-PA-Aubin (1975), Siebert (1975); Saulteaux-wO-Voorhis (1984b); Shawnee-Sh-Voegelin (1937-40); Wiyot-W-Teeter (1964); Yurok-Y-Robins (1958), Proulx (field notes).

PA reconstructions found in Aubin (1975), Bloomfield (1946), and Siebert (1975) are respectively identified with the letters A, B, and S plus the item number.

Transcription generally follows that of Siebert (1975) for Algonquian, Teeter (1964b) for Wiyot, and Robins (1958) for Yurok. However, the following changes have been made: PA *l̥ is written for *θ, PA *s for *c, PA *t for *x, PA *ʔ for *h between vowels, W ʔ for h before a consonant, W a for o, W ɨ for a, and Y ɨ for inverted r. For discussion of the changes, see Proulx (1984:168-169). Orthographic concessions to my word processor: s wedge is written as ŝ, c wedge as ĉ, schwa as ɨ, and Menominee epsilon as ɛ.

2. According to Greenberg (ibid. p.61), a discourse deictic becomes an article at the point 'where it becomes compulsory and ... [includes] things known from context, general knowledge, or ...the only member of its class'. However, he also recognizes that 'certain languages are on the borderline between two stages' - and this would seem to be the case for Cheyenne (with its 'unused' deictics) and Wiyot (with ta), as we shall see. [Teeter (1964:95) calls ta an articular preverb, but it clearly doesn't meet Greenberg's definition of an article.] In what follows, I shall assume it is possible for such borderline discourse deictics to become grammatical markers without necessarily having been compulsory articles.

Wayne Leman (1984:330-332) describes two Cheyenne discourse pronouns which make anaphoric reference to entities already known to the addressee. In his examples, one set - which he calls EVOKED - have as antecedents noun phrases containing an ordinary demonstrative pronoun [which in turn have common nouns as antecedents]. Another set, which he calls UNUSED - presumably because there has been no prior use within the discourse of the entities they refer to, have the addressee's background knowledge as antecedents. Both sets are somewhat article-like in their usage, making no reference to the entity's position in space [though their morphology suggests that they originated from a spatial metaphor, intradiscourse being 'near' and extradiscourse 'far']. It is partly by analogy with these pronouns that previous mention or its absence are suggested as distinguishing features for the Proto-Algic discourse pronouns.

3. The opposition between PA *ŝ and PA *ɬ is neutralized before a morpheme boundary (with *ŝ before *i(:) and *y, and *ɬ elsewhere) - but in this environment the Proto-Algic grade variation is still attested by the PA doublets of *l and *ɬ, as in PA *nal- 'windward' versus *naɬ- 'upriver' (Faries C nunim 'windward', nutimik 'up the river', and compare Faries C nutuhi'skum 'she walks up the river' for segmentation).

In consonant clusters, *r and *l are treated variously according to the language and their relative position in the cluster and word: common reflexes of *l are zero, l, ɬ, and less-common t, while *r gives s and ŝ (see Proulx 1984:sec.8). In particular,Yurok regularly has s and Wiyot ŝ and its grade variant s from *r in clusters (Algic #108, 111, 112). In addition, PA *l seems to correspond to Y s in word final position (Algic #29, 30, 111, 219). Thus, it is really only initially and between consonants that the new analysis changes anything.

4. The vowel length in Mc -te:t'm (TA) and -te:l'm (TI) could result from stress [ie.e., PA *-é1], but this does not explain the initial Mc t. More likely, there is incorporation of *-te:h 'heart (medial)' A2025, which is associated with thinking in Algic culture [W

dɨtw- 'think' (with d- 'that way' - Teeter 1964:107-108), wɨtw 'heart', F iŝite:he:wa 'she thinks thus' (iŝi- 'thus, that way'), PA *-te:hi 'heart' A823, #112]. That is, perhaps *-te:h-e:lem ---> Mc -te:l'm.

A sequence of sonorant plus short weak vowel (plus nasal) drop in Micmac before a homorganic obstruent, as in Mc -te:t'm above, but this does not cause lengthening of the preceding vowel: Mc alamk 'I look around for her', alapt'm 'I look around for it' [from PAc *a:wal- 'around' #56, PA *-a:pam and *-a:pantam (reconstructed without the *am) A47, 49].

5. Possibly what is added here is cognate to PA *-ayaki 'kinds, sorts, ways, places': F nekot(w)ayaki 'one group, set', ni:ŝwayaki 'two kinds', C nistwayak 'in three ways, kinds, places', ne:wayak 'in four ways, fourfold'; F taswayaki 'so many kinds', C tahtwayak 'in so many ways'. A contraction of Proto-Algic *aya to Y o: seems plausible, as this is the established reflex of *a:wa (Proulx 1984:186).

6. In Algonquian, the above is generally replaced with: PA *táhŝi- 'so much, so many' A2014-2015 (Mc ta:s- 'how many?' proves the special stress - elsewhere written L). Compare also Mc te:s- 'that many', with initial change. After this element PA had an optional *-w, doubtless analogical with post-numeral *-w (e.g., *nekwetwa:si '6' A1421).

The Micmac stems, contrasting with the locative relative Mc t'l- and changed et'l- 'where, there', show that the PA stem begins in *t- rather than underlying *(en)t-. However most of the Algonquian languages, whose conjuncts are less prominent than Micmac's, have reshaped their changed conjunct stems to psPA *e:ntahɨ- A264 by analogy with the locative relative ('where'). Menominee has also analogically created an unchanged counterpart of both (used in prefixed forms), reflecting psPA *antahɨ-. Cree has generalized a root reflecting psPA *entahɨ-, e.g., ihtasiw 'she is so many'.

Examples of this element in counting: Mc eliwik'nek te:sipuna:t 'she's 7 years old' (na:nipuna:t 'she's 5 years old' - and cf. M tahno:konak<sew 'she is so many days old'). In Algonquian, this type of phrase largely replaces the variety in #256 - always, when a classifying medial is involved: Mc asoxom te:soxsiĉik '6 things cylindrical in shape', M no:hekan tahnuapi:k '7 strings' (ni:suapi:k '2 strings').

7. It is not clear what the social or linguistic correlates of such a shift in metaphors may be, but it is clear enough that Iroquoian influence could not have been involved. Neither is it

clear how early the shift in metaphors took place, or even if it dates back to PA. For example, the glosses of Delaware nigani 'before' and Ab nikôniwi 'ahead, before' A1608 could mean that these languages retain the moving time metaphor under Iroquoian influence - assuming 'before' means 'earlier' here - and my sources on Montagnais, Passamaquoddy and Micmac show no signs of either metaphor [glossing their cognates for spacial reference only]. Possibly, the shift in metaphors took place during the first Central-Eastern period, only later spreading to western Cree.

Against this, however, is the fact that Blackfoot has the newer Algonquian pattern: isskóxt- 'the one behind, of long ago' (Taylor 1969:208) from PA *eŝkw- (M eskw- 'last, left over'). The alternate aapatóxt-'the one behind, in the north, the ancient one' and am?sskápuxt- 'the one ahead, in the south' further ties the cardinal directions into this metaphor.

REFERENCES

Abbott, Clifford. 1981. Here and there in Oneida. IJAL 47.50-57.

Armagost, James L. 1985. Comanche ma-: undistinguished diectic, narrative obviative. IJAL 51.302-210.

Aubin, George F. 1975. A Proto-Algonquian dictionary. National museum of man Mercury series, Canadian ethnology service paper no. 29. Ottawa: national museums of Canada.

Baraga, R.R. Bishop. 1878. A dictionary of the Otchipwe language. Reprinted by Ross and Haines. Minneapolis, Minnesota, 1973.

Black, Mary B. 1973. Diversity within one Severn Ojibwa speech community. Algonquian Linguistics 2(3-4):7-13.

Bloomfield, Leonard. 1928. Menomini texts. Publications of the American Ethnological Society 12. New York.

----------. 1934. Plains Cree texts. Publications of the American Ethnological Society 16. New York.

----------. 1946. Algonquian. Linguistic structures of native America. Ed. Harry Hoijer, pp. 85-129. New York: Viking fund.

----------. 1957. Eastern Ojibwa. Ann Arbor: University of Michigan press.

----------. 1975. Menominee lexicon. Ed. Charles F. Hockett. Milwaukee: Milwaukee public museum.

----------. Ms. Fox and Cree dictionaries. In possession of C.F. Hockett.

Bonvillain, Nancy. 1981. Locative semantics in Mohawk: time and space. IJAL 47.58-65.

Cuoq, J. 1966. Etudes philologiques sur quelques langues sauvages de l'Amérique (1866). Johnson Reprint Corporation.

Day, Gordon M. 1964. A St. Francis Abenaki vocabulary. IJAL 30.371-92.

DeBlois, Albert D. and Alphonse Metallic. 1984. Micmac Lexicon. Canadian ethnology service paper no. 91. Mercury Series, National Museum of Man. Ottawa.

Escribens, Augusto y Paul Proulx. 1970. Gramática del Quechua de Huaylas. Lima: : univerdidad nacional mayor de San Marcos.

Faries, R. and E.A. Watkins. 1938. Dictionary of the Cree language. Toronto:Anglican Book Centre, reprinted 1981.

Fillmore, Charles J. 1971. Santa Cruz lectures on deixis. Bloomington, Indiana: Indiana university linguistics club.

Glenmore, Josephine Stands in Timbre and Wayne Leman. 1984. Cheyenne Topical Dictionary. Cheyenne Translation Project. Busby, Montana.

Goddard, Ives. 1969. Delaware verbal morphology. Harvard university doctoral dissertation.

----------. 1974. An outline of the historical phonology of Arapaho and Atsina. IJAL 40.102-16.

----------. 1983. The Eastern Algonquian subordinative mode and the importance of morphology. IJAL 49.351-387.

----------. 1984. The obviative in Fox narrative discourse. Papers of the fifteenth Algonquian conference. Ottawa: Carleton university.

Greenberg, Joseph H. 1978. How does a language acquire gender markers? Universals of human language, vol. 3 (word structure). Stanford, California: Stanford university press.

Greensmith, Jennifer M. 1985. Future markers in Woods Cree. Ed. Wiliam Cowan. Papers of the sixteenth Algonquian conference. Ottawa: Carleton university.

Haas, Mary R. The development of PA *-awe:. Studies in historical linguistics in honor of George Sherman Lane (University of North Carolina studies in the Germanic languages and literatures, 58). Chapel Hill: university of North Carolina

press.

Hockett, Charles F. 1948. PotawatomiI-III. IJAL 14.1-10, 63-73, 139-149.

James, Deborah. 1984. The dubitative in Moose Cree. Papers of the fifteenth Algonquian conference. Ottawa: Carleton university.

Klavans, Judith L. 1985. The independence of syntax and phonology in cliticization. Language 61:95-120.

Laurent, Joseph. 1884. New familiar Abenakis and English dialogues. Québec: Leger Brousseau.

Leavitt, Robert M. 1985. Passamaquoddy-Malecite preverbs. Ed. Wiliam Cowan. Papers of the sixteenth Algonquian conference. Ottawa: Carleton university.

Lees, J. 1979. A mini-grammar of Cree-Montagnais. Montreal working papers in linguistics 12 (linguistique amérendienne I: syntaxe algonquienne). Montréal: université de Montréal.

Leman, Wayne. 1984. Cheyenne deixis and sound symbolism. Papers of the fifteenth Algonquian conference. Ed. William Cowan. Ottawa: Carleton university.

LeSourd, Philip. 1984. Kolusuwakonol. Ed. Robert M. Leavitt and David A. Francis. Fredericton, N.B.: University of New Brunswick (Micmac-Maliseet Institute).

Mathevet. 1975. The Mots Loup of Father Mathevet. Ed. Gordon Day. Ottawa: National museums of Canada publications in ethnology 8.

Masthay, Carl. 1972. Schmick's Mahican manuscript, transcribed and rearranged by English translation. St. Louis: published by the author.

Meillet, A. 1937. Introduction à l'étude comparative des langues Indo-Européennes. Forge Village, Mass.: university of Alabama press, 1964.

Nichols, John and Nyholm, E. 1979. An Ojibwa Word Resource book. St. Paul: Minnesota archaeological society.

Parker, Gary. 1965. Gramática del Quechua Ayacuchano. Lima: univerdidad nacional mayor de San Marcos.

Piggott, G. L., and A Grafstein. 1983. An Ojibwa lexicon.

Canadian ethnology service paper no. 90, Mercury series. Ottawa: National Museum of Man.

Proulx, Paul. 1988. The demonstrative pronouns of Proto-Algonquian. IJAL 54:309-330.

----------. 1985a. Proto-Algic II: verbs. IJAL 51.59-94.

----------. 1985b. Notes on Yurok derivation. Kansas Working Papers in Linguistics 10(2):101-144.

----------. 1984a. Proto-Algic I: phonological sketch. IJAL 50.165-207.

----------. 1984b. Two models of Algonquian linguistic prehistory: diffusion versus genetic subgrouping. Anthropological Linguistics 26(4)393-434.

----------. 1982a. The origin of the absolute verbs of the Algonquian independent order. IJAL 48.394-411.

----------. 1982b. Yurok retroflection and vowel symbolism in Proto-Algic. Kansas working papers in linguistics 7.119-123.

----------. 1980a. The subordinative order of Proto-Algonquian. IJAL 46.289-300.

----------. 1980b. Some Algic/Salish comparisons. California-Oregon languages newsletter 5(2):7-8.

Rhodes, Richard A. 1985. Eastern Ojibwa-Chippewa-Ottawa dictionary. Ed. Werner Winter. Trends in linguistics: documentation 3. Berlin - New York - Amsterdam: Mouton.

Robins, R. H. 1958. The Yurok language. University of California publications in linguistics 15, Berkeley.

Sawyer, Jesse O. 1981. The Wappo glottal stop. Survey Reports #1. Ed. Alice Schlichter, Wallace L. Chafe, and Leanne Hinton. Survey of California and other Indian languages. Berkeley.

Siebert, Frank T, Jr. 1975. Resurrecting Virginia Algonquian from the dead. Studies in Southeastern Indian languages. Ed. James M. Crawford, pp. 285-453. Athens: university of Georgia press.

Strachney, William. 1953. The historie of travell into Virginia Britania (1612). Virginia Freund and Louis B. Wright. Hakluyt society. Works, series 2, 103. London.

Taylor, Allan. 1969. A grammar of Blackfoot. Universtiy of California at Berkeley doctoral dissertation.

Teeter, Karl V. 1964. The Wiyot language. UCPL 37. Berkeley and Los Angeles: university of California press.

----------. 1971. The main features of Malecite-Passamaquoddy grammar. Studies in American Indian languages. Ed. Jesse Sawyer, pp. 191-249. UCPL 65. Berkeley and Los Angeles: university of California press.

Trumbull, James H. 1903. Natick dictionary. BAE-B 25. Washington, D.C.

Voegelin, C.F. 1937-40. Shawnee stems and the Jacob P. Dunn Miami dictionary. Indiana Historical Society. Prehistory research series 1:63-108, 135-167, 289-341, 345-406, 409-478.

Voorhis, Paul H. 1974. Introduction to the Kickapoo language. Language science monographs 13. Bloomington: Indiana university.

----------. 1979. Grammatical notes on the Penobscot language from Frank Speck's Penobscot transformer tales. University of Manitoba anthropology papers 24. Winnipeg: university of Manitoba.

----------. 1984a. A Cree phrase book. Brandon university department of Native Studies.

----------. 1984b. A Saulteaux (Ojibwa) phrase book based on the dialects of Manitoba. Brandon university department of Native Studies.

Wolfart, Chris. 1973. Plains Cree: a grammatical study. Transactions of the American Philosophical society, n.s. 83(5).

CUMULATIVE CONTENTS OF VOLUMES 1-16
Kansas Working Papers in Linguistics

Volume 1, 1976
Walter M. Hull and Paul Brockington, Editors

On the Interpretation of Two-Headed Stacked Relative Clauses	*G. Stump*
Position in Grammar: Sit, Stand, Lie	*L.J. Watkins*
On the *Grammatica de Lingoagem Portuguesa*	*E. Barreto Reis*
Teaching English Suprasegmentals to Spanish Speakers	*B. Rodriguez*
The Importance of Phonetic Data in All Child Language Analyses	*V.C. Gathercole*
The Acquisition of English Derivational Suffixes: A Pilot Study	*H. Harris*
The Compound Bilingual as an Agent of Change: A Psychological Model of Bilingualism	*F.C. Miller C.D. Park and N.M. Carson*

Volume 2, 1977
Laurel Watkins and Virginia Gathercole, Editors

Agent, Instrument and Intention	*R.P. Schaefer*
Speech Style Shifting in Young Children's Speech	*L. Paul*
A Study of the Comings and Goings of the Speakers of Four Languages: Spanish, Japanese, English, and Turkish	*V.C. Gathercole*
Some Common Elements of Muskogean Verb Phonology	*K.M. Booker*
A Closer Look at Sudanese Phonology	*G. Gathercole*
A Study of Speaker Sex Identification	*R.P. Schaefer*
A Linguistic Identification of Kansas Volga German	*G.L. Denning*
Second Language Acrolect Replacement in Limon Creole	*A. Herzfeld*

Volume 3, 1978 (out of print)
Anthony Staiano and Feryal Yavas, Editors

On the Notion "Restricted Linguistic Theory": Toward Error-Free Data in Linguistics	*K.L. Miner*

Instrumental Phonetic Studies and Linguistic Analysis: The Case of Kansas Potawatomi — *G. Gathercole*
Borrowing and Its Implications for Turkish Phonology — *M. Yavas*
The Unmarking of Quapaw Phonology: A Study of Language Death — *R.L. Rankin*
Vowel Harmony and Code-Mixing: A Description of Phonemic Substitution in an American-Hungarian Text — *M. Dobozy*
Meaning and Placement of Spanish Adjectives — *G.L. Denning*
Towards a Universal for Deictic Verbs of Motion — *V.C. Gathercole*
Speech Acts, Functions and Presuppositions — *J. Abugattas A.*
Problems in Machine Translation Between Thai and English Using Montague Grammar — *K. Godden*
On the Origin of Number Marking in Muskogean — *K.M. Booker*
The Use of Locative Prepositions by Hebrew Speaking Children 2:0-3:0 Years Old — *E. Dromi*
Static and Dynamic Properties as Bases for Children's Categorization — *G. Simpson*
The Relative Clause in Child Language: A Review — *J.B. More*

Volume 4:1, 1979
Geoffrey Gathercole and Kurt Godden, Editors

In Defense of Concrete Explanations — *M. Yavas*
Theoretical Implications of the Great Menominee Vowel Shift — *K.L. Miner*
Tense Logic and Tense and Aspect in English — *B. Bryan*
The Turkish Aorist — *F. Yavas*
Attributive and Referential Uses of Basic Syntactic Constituents — *K. Godden*
Child and Adult Verb Categories — *R.P. Schaefer*
Order of Acquisition of Spanish Grammatical Morphemes: Comparison to English and Some Cross-Linguistic Methodological Problems — *D.M. Vivas*
On the Production of Comparative Structures in Child Speech — *V.C. Gathercole*
The Development of Conversational Coherency in Young Children — *A.V. Staiano*

Volume 4:2, 1979
Geoffrey Gathercole and Kurt Godden, Editors

Speech Act Theory and the Problem of Meaning	*A.C. Genova*
The Obviative Suffix *-ni* in Algonquian	*G. Gathercole*
A Socio-Linguistic Inquiry into Language Change: Alsatian, A Case Study	*M. Hessini*
Vowel Harmony, Natural Phonology and the Problems of Borrowing	*M. Yavas*
A Fiberoptic Study of Stop Production in Maithili	*R. Yadav*
Comparison of Static Form and Dynamic Action as the Basis of Children's Early Word Extensions	*M.W. Casby*
Regression, Surface Constraints and the Acquisition of Mid Vowels	*R.P. Schaefer*
The Acquisition of *more* and *less*: A Critical Review	*V.C. Gathercole*

Volume 5:1, 1980
Patricia Hamel and Ronald Schaefer, Editors

Modality in Malay	*A.A. Idris*
Subjective Modality	*C. Seibel*
Modality in Alsatian	*M. Hessini*
What could *dekiru* Possibly Mean?	*W.L. Wight*
A Note on *can* and *may*	*C.K. Oh and C. Seibel*
The Subjunctive in Spanish	*J.M. Solano*
Modality in Modern Hebrew	*E. Dromi*
Stackability of Modalities	*I.S. Shaw*
A Cross-Linguistic Look at Future Markers	*P.J. Hamel*
The Turkish Future Marker	*F. Yavas*
A Bibliography on Modalities	

Volume 5:2, 1980
Patricia Hamel and Ronald Schaefer, Editors

Choctaw Suppletive and Derivational Morphology	*J. Heath*
Tonogenesis and the Kickapoo Tonal System	*G. Gathercole*
Hindi-English, Code-Switching and Language Choice in Urban Upper-Middle-Class Indian Families	*S. Malhotra*
Meandering Through the Name Maze	*M. Hargadine*

Decrement in Children's Response to *big* and *tall* — *V.C. Gathercole*
Development of Turn-Taking in a Young Child in Relationship to Pauses in the Mother's Speech — *A. Finch*
On the Motivation and Structure of a Strengthening Process in Tswana — *R.P. Schaefer*

Volume 6, 1981
Hiroshi Nara and Hope Goldman, Editors

Sex and Gender in Natural Language — *W.K. Percival*
The Semantic Structure of Verbal Reduplication: A Case Study of Reduplication in Amharic, Hindi, Malay, Salish and Siroi — *A.A. Idris*
On Palatalization as a Phonetic Process — *R.L. Rankin*
On Movement Constraints — *C.K. Oh*
Incorporation in Muskogean — *K.M. Booker*
On the Nature of Pre-Literate Spelling Ability — *W.D. O'Grady and D.E. Gibbons*
Discourse Considerations in Genesis 1:1-2:4a — *J.E. McLaughlin*
The History of Nigerian Linguistics: A Preliminary Survey — *B.A. Okolo*
Acoustic Characteristics of Arabic Pharyngeal and Pharyngealized Consonants — *L. Boxberger*

Volume 7, 1982 *Studies in Native American Languages*
John E. McLaughlin and J. Liessman Vantine, Editors

Noun Incorporation in Natchez — *M.R. Haas*
Comanche Deictic Roots in Narrative Texts — *J.L. Armagost*
Number Suppletion in North American Indian Languages — *K.M. Booker*
A Semantic Contribution to Choctaw Referential Coding Phenomena — *W.D. Davies*
Transitive Inflection in (Moses) Columbian Salish — *M.D. Kinkade*
Two or Three (or Four) Points about Adverbs and Aspect in Central Numic (Uto-Aztecan) — *J.E. McLaughlin*
A Short Modern Winnebago Text with Song — *K.L. Miner*
French Loanwords in Cree — *D.H. Pentland*
Yurok Retroflection and Vowel Symbolism in Proto-Algic — *P. Proulx*

A Quapaw Vocabulary — *R.L. Rankin*
Remarks on the Lakhota Enclitics — *W.J. de Reuse*
On Some Problematic Phonological Alternations in Kitsai Texts — *J.L. Vantine*
Grammatical Notes on the Wawenock Language — *P. Voorhis*
Passives and Verb Agreement in Kiowa-Tanoan — *L.J. Watkins*

Volume 8:1, 1983

Letta Strantzali, Editor

Oral Vowel Reduction in Brazilian Portuguese — *F. Ingemann and M.A. Nobre*
Brazilian Portuguese Stressed Vowels: A Durational Study — *P.J. Hamel*
Comma Intonation in a Tone Language — *A.G. Osburne*
Albanian Reflexives: Violations of Proposed Universals — *P. Hubbard*
The Generative Relationship — *M.J. Elson*
On Michael Dummett's Notion of Decidability — *H. Nara*
Computerized Permutation of Pikean Field Matrices — *K.L. Miner and B.Ľ. Taghva*
An Analysis of Sex Stereotypes in the Japanese Language — *A.M. Ediger*

Volume 8:2, 1983

Studies in Native American Languages II

John E. McLaughlin, Editor

Comanche Narrative: Some General Remarks and a Selected Text — *J.L. Armagost*
Noun and Verb in a Salishan Language — *Y.M. Hebert*
Noun Stripping and Loose Incorporation in Zuni — *K.L. Miner*
The Position of Opata and Eudeve in Uto-Aztecan — *D.L. Shaul*
Morphophonemics of Nisgha Plural Formation: A Step Towards Proto-Tsimshian Reconstruction — *M.L. Tarpent*
Areal and Genetic Linguistic Affiliations of the Salinan — *K. Turner*
A Working Bibliography of the Languages of (Roughly) the Western United States(-Athapaskan) (+Haida, Tsimshian, Wakashan) — *J.E. McLaughlin*

Volume 9, 1984
Studies in Native American Languages III
Letta Strantzali, Editor

Catawba Morphology in the Texts of Frank Speck and of Matthews Red Thunder Cloud	*P. Voorhis*
Lexical Representation of Salish Verb Roots: A Preliminary Examination	*N.R. Thompson*
A Revised Approach to Southern Paiute Phonology	*J.E. McLaughlin*
JENNY: An Interactive Program in BASIC for Analyzing Comanche (and Other) Texts (With Sample Text)	*J.E. McLaughlin*
Description of a Pikean Field Matrix Permutation Program	*D. Barrager*
Esselen Linguistic Materials	*D.L. Shaul K. Turner and J. Collins*
The Structure and Function of Nootkan Baby Talk	*J.F. Kess and A. Copeland*

Volume 10:1, 1985
Richard W. Lungstrum and Antonia Y. Folarin, Editors

Lexicalization of Event Types in Japanese and the Semantics of *-te iru*	*H. Nara*
Greek Mismatches or Why the Subject Does not Always Accord with the Verb	*C. Pareskevas-Shepard*
One-Way Talking: My Greek Motherese	*C. Pareskevas-Shepard*
An Analysis of Igbo Proverbs and Idioms	*B.A. Okolo*
How Well can Japanese ESL Students Draw Inferences from English Sentences?	*T. Tomioka*
Peirce's Concept of the Index: The Need for a Fourth Sign	*D.E. Wooley*

Volume 10:2, 1985
Studies in Native American Languages IV
Richard W. Lungstrum and Antonia Y. Folarin, Editors

On Predicting Voiceless Vowels in Comanche	*J.L. Armagost*
Internally Headed Relative Clauses in Choctaw	*G.A. Broadwell*

Shifting Deictic Centers in the Hualapai Demonstrative System — *M. Howe*
Velar Palatalizations in Dakota — *R.W. Lungstrum*
On the Semantics of 'Come,' 'Go,' and 'Arrive' in Otomanguan Languages — *M. Macauley*
Slavey Expressive Terms: Synchronic Evidence for Diachronic Change — *M. Pepper*
Notes on Yurok Derivation — *P. Proulx*
Definiteness Subcategorized in Discourse: Lakhota *k'u* — *D.S. Rood*

Volume 11, 1986

Mary Howe and Shehdeh Fareh, Editors

Expressive Phonemes in Japanese — *J. Bruch*
Approaches to Anaphora Resolution in a Natural Language Database Management System — *H. Nara*
Major Address Patterns in Polish and How They Compare with Major Address Patterns in English — *E. Moszczak*
How Far Does the English Teachers' Pronunciation Affect that of Their Students in Jordanian Public Schools? — *S. Fareh*
On Speech Formulas and Linguistic Competence — *A. Pawley*
I Can't Help Myself: A Lexicalized Expression Examined — *N. Beery*
Conflicting Speech Formulas: About To and Not About To — *M. Howe*

Volume 12, 1987

Yukihiro Yumitani and Shehdeh Fareh, Editors

Particles in Tojolabal Mayan Discourse — *J. Brody*
One Hundred Years of Lakota Linguistics (1887-1987) — *W.J. de Reuse*
Lexical and Phrasal Phonology of Yoruba Nouns — *A.Y. Folarin*
Some Klamath-Sahaptian Grammatical Correspondences — *N. Rude*
A Note on Hopi Consonant Gradation — *D.L. Shaul*
Word Order in Klamath — *K. Sundberg*
A Comparative Sketch of Pueblo Languages: Phonology — *Y. Yumitani*

Volume 13, 1988

Beth Abu-Ali and Julie Bruch, Editors

A Kinesic Approach to Understanding Communication and Context in Japanese	*J. Bruch*
Correlations between the Three Level Tones and Vowel Durations in Standard Thai	*S. Deepadung*
On Predicting the Glottal Stop in Hualapai	*A. Folarin*
Prefix oni in Yoruba	*A. Folarin*
The Study of Minority Languages in China	*Z. He*
Lexical, Functional Grammar Analysis of Korean Complex Predicates	*H.S. Kim*
In the Social Register: Pronoun Choice in Norwegian and English	*C. Mills*
Diphthongization, Syllable Structure and the Feature [High] in HMU	*C. Mills and D. Strecker*
A Transitional Orthography for Northern Canadian Native Languages	*P. Proulx*
A Relic of Proto-Siouan *ro/no 'one' in Mississippi Valley Siouan	*R.L. Rankin*
Making Sense in ESL: A Set of Three Rhetorical Structures	*R.B. Scott*
The Path Containment Condition and Argument Structure	*T. Stroik*
Social Deixis in Sinhalese: The Pronoun System	*S. Tilakaratne*
The Behavior of Non-Terms in Shaba Swahili: A Relational Approach	*H. Obeidat and M. Kapanga*

Volume 14:1, 1989

Jong-seok Ok and Mubeccel Taneri, Editors

What makes the Japanese Inscrutable? A Linguistic Perspective	*J. Bruch*
A New Look at Old English Metrics	*A.K. Huettner*
A Class of Indefinites in Vietnamese	*L.A. Michaelis*
Cohesion and the Yiddish Consecutive Order	*K.L. Miner*
Syllable Structure and Interlanguage Phonology	*T. Riney*
Socially Deictic Use of a Body-Part Term in Turkish	*M. Taneri*
Chinese Passives: Transformational or Lexical	*J. Zhang and X. Wen*

Volume 14:2, 1989
Studies in Native American Languages V
Jong-seok Ok and Mubeccel Taneri, Editors

Comanche Consonant Mutation: Initial Association or Feature Spread	*J.L. Armagost*
The Alsea Noun Phrase	*E. Buckley*
Linguistic Borrowing in Chicano Literature	*E. Chavez*
Koasati Comparative Constructions	*G. Kimball*
Underlying Nasals in Crow, Hidatsa and Proto-Missouri River (Siouan)	*J. Martin*
A Special Word in Jamul Diegueno	*A. Miller*
The Focus Antipassive in K'iche' Mayan	*C. Pye*
An Annotated Bibliography of Kiowa-Tanoan	*R. Sprott*

Volume 15:1, 1990
In Lee and Scott Schiefelbein, Editors

Inferentials: The Story of a Forgotten Evidential	*G. P. Delahunty*
Knowledge of Idiomaticity: Evidence from Idiom Calquing and Folk Literalization	*Z. He*
A Cyclic Approach to Simple Cliticization	*H. Huckabay*
On Japanese Causative: Review of Shibatani's Notion of Causative	*M. Shimada*
NP Predication and Full Saturation	*T. S. Stroik*
A Type of Reduplication in Turkish	*M. Taneri*

Volume 15:2, 1990
Studies in Native American Languages VI
In Lee and Scott Schiefelbein, Editors

Interpreting St. Clair's Comanche Texts: Objective Case Marking and 'Same Subject' Dependent Clauses	*J. L. Armagost*
Reflexive and Reciprocal Elements in Ixil	*G. Ayres*
Native American Languages and Literacy: Issues in Orthography Choice and Bilingual Education	*C. Biava*
Spatial Deixis in Chiwere	*J. D. Hopkins*
The Historical Comparative Classification of Columbian Inga (Quechua)	*R. Parks*
Proto-Algonquian Verb Inflection	*P. Proulx*
A Supplementary Bibliography of Lakota Language and Linguistics (1887-1990)	*W. J. de Reuse*

Volume 16, 1991
Kumiko Ichihashi and Mary Sarah Linn, Editors

Part I: General Linguistics
Collaboration on Topic Change in Conversation — *M. Howe*
Stories in Conversation — *R. S. Hofer*
It's Like, 'What's Happening in the Evolution of Like?': A Theory of Grammaticalization — *T. Meehan*
Folk Etymology (in English and Elsewhere) — *A. Poruciuc*
Liquid Assimilation in Havana Spanish — *F. Hwa*
The Syntax-Phonology Interface as the Key to Metricality: Evidence from Taiwanese Folksongs — *Y. E. Hsiao*
Causative Constructions in Nepali — *K. Horie*

Part II: Studies in Native American Languages
Transitivity Indicators *-yu* and *-wi* in Hualapai — *K. Ichihashi*
Proto-Algic III: Pronouns — *P. Proulx*